

This information supplements the "General technical information" and statements on the product pages.

Common features in the VD and VDR types with vertical discharge.

■ **Features**

As the exhaust air is discharged vertically, this has the following advantages:

- Less harmful impact on the environment through contamination.
- Minimised solids deposits on roofs, roof windows and skylights.
- Reduction of potentially disruptive influences (e.g. smells, damp) on the adjacent building, windows, open hatches and chimneys or other inflowing and exhaust air roof fans in the surrounding area.

Common features in the VD and VDR types with vertical discharge and horizontal RD types.

■ **Noise**

Information on this can be found on the product pages and under the "General technical product information".

■ **Incorrect direction of rotation**

The devices can only be used for exhaust air operations. Operating the device in an incorrect direction of rotation overloads the motor and trips any fitted thermal contacts or PTC thermistors. Typical concomitant features for this are the practical lack of air flow capacity, vibration and abnormal noise.

■ **Installation**

The roof fans must be installed horizontally. When the roofs are sloped, this is to be implemented using a suitable base frame design as otherwise water entry has to be expected. See the DV EC model on page 440 for details on the delivery and constructing the base frame.

■ **VDR design**

Centrifugal roof fan with vertical discharge and exterior override switch. Casing and base plate made of galvanised sheet steel. The fans are wired to the override switch by the manufacturer. The base plate of the casing is equipped with bores (hole pattern according to DIN 24155 page 3) for connecting suction-side accessories.

■ **Motor**

External rotor motors with a closed design (IP 44) located in the air flow are used. They are designed in accordance with DIN EN 60034 / VDE 0530 and



DIN EN 60335-1 / VDE 0700-1, insulation class B and protection category I. They are equipped with low-maintenance ball bearings, which have enough lubricant supply for up to 30.000 hours of operation.

■ **Impellers**

High-performance centrifugal impellers with backwards curved vanes made of polymer. Low-vibration operation thanks to dynamic balancing in accordance with DIN ISO 1940 T.1 – grade 6.3.

■ **Air flow temperatures**

The devices can be used in the range of -40 °C to at least +60 °C. The upper limit is type-specific and is shown in the table on the product page. If the fan is speed-controlled, the value is to be reduced by around 10 °C.

■ **Speed control**

Information on this can be found on the product pages and under the "General technical product information".

■ **Electrical connection**

The supply feed can come from beneath via a cable bushing in the base plate and from above (via the roof). It is to be connected without dismantling further parts on the exterior terminal box according to the attached circuit diagram.

■ **Motor protection**

Information on this can be found on the product pages and under the "General technical product information".

■ **VD design**

Robust design, largely corrosion-resistant and weather-resistant. Motor bedplate and base plate with stainless steel inlet nozzle. Casing made of aluminium resistant to sea water with built-in interference protection. In all types with explosion protection, the base plate is made of galvanised sheet steel with an aluminium inlet nozzle. Quiet operation thanks to vibration-damping motor suspension. Flat construction design.



■ **Motor**

VD: External rotor motors located in the air flow with degree of protection IP 44 or IP 54 and in insulation class F according to DIN EN 60034 / VDE 0530 and DIN EN 60335-1 / VDE 0700-1 are used for the AC types. The winding is also impregnated for moisture resistance. The low-maintenance ball bearings have enough lubricant for a service life of approximately 30.000 hours of operation. The motor and impeller are dynamically balanced as a single unit in accordance with DIN ISO 1940 T.1 – grade 6.3 for low-vibration operations.

VD T120: Flange motors with self-ventilation (T120 design) with degree of protection IP 54 or IP 55 and in insulation class F according to DIN EN 60034 / VDE 0530 and DIN EN 60335-1 / VDE 0700-1 are used for the AC types. The motor is located outside the air flow. The winding is also impregnated for moisture resistance. The low-maintenance ball bearings have enough lubricant for a service life of approximately 30.000 hours of operation. The motor and impeller are dynamically balanced as a single unit in accordance with DIN ISO 1940 T.1 – grade 6.3 for low-vibration operations.

■ **Impellers**

VD/VD T120: High-performance centrifugal impellers with backwards curved vanes made of galvanised sheet steel, polymer or aluminium. Low-vibration operation thanks to dynamic balancing in accordance with DIN ISO 1940 T.1 – grade 6.3.

■ **Protection against contact**

All devices are delivered with a protective grille on the exhaust air side according to DIN EN ISO 13857 as standard. If the system does not provide any protection against contact with rotating parts on the intake side, a guard is also to be attached here (accessory).

■ **Air flow temperatures**

VD: The devices can be used in the range of -20 °C to at least +70 °C. The upper limit is type-specific and is shown in the table on the product page. If the fan is speed-controlled, the value is to be reduced by around 10 °C. Types with explosion protection are permitted for use up to a maximum of +40 °C.

VD T120: The devices can be used in the range of -30 °C to at least +120 °C. If the fan is speed-controlled, the value is to be reduced by around 10 °C.

■ **Speed control**

Information on this can be found on the product pages and under the "General technical product information". The types with voltage control are marked by a value in the column "Current consumption when regulated".

■ **Electrical connection**

The supply feed can come from beneath via a cable bushing in the base plate and from above (via the roof). It is to be connected without dismantling further parts on the exterior terminal box or override switch according to the attached circuit diagram.

■ **Full motor protection**

Information on this can be found on the product pages and under the "General technical product information".

■ **Explosion protection**

The types with explosion protection are in line with equipment group II, category 3G for use in zone 2 in accordance with Directive 2014/34/EU. The types with explosion protection and diameters from 315 to 560 mm are in line with equipment group II, category 2G for use in zone 1 in accordance with Directive 2014/34/EU.

The EU conformity declaration enclosed with every fan attests to the design according to DIN EN 60079-0 / VDE 0170-1 and DIN EN 60079-7 / VDE 0170-6. The degree of protection is in line with Ex e 2G. The temperature class is marked on the type side.

The exterior terminal box also satisfies Ex e 2G. Further statements can be found in the sections "Project planning instructions for explosion protection" and "General technical information". Larger air gaps, which can reduce performance by up to 10 %, are required under EU Directive 2014/34/EU.



■ RD design

Robust design, largely corrosion-resistant and weather-resistant. Motor bedplate and base plate with stainless steel inlet nozzle. Casing made of aluminium resistant to sea water with built-in interference protection. In all types with explosion protection, the base plate is made of galvanised sheet steel with an aluminium inlet nozzle. Quiet operation thanks to vibration-damping motor suspension. Flat construction design.

■ Motor

External rotor motors located in the air flow with degree of protection IP 44 or IP 54 and in insulation class F according to DIN EN 60034 / VDE 0530 and DIN EN 60335-1 / VDE 0700-1 are used for the AC types. The winding is also impregnated for moisture resistance. The low-maintenance ball bearings have enough lubricant for a service life of approximately 30.000 hours of operation. The motor and impeller are dynamically balanced as a single unit in accordance with DIN ISO 1940 T.1 – grade 6.3 for low-vibration operations.

■ Impellers

High-performance centrifugal impellers with backwards curved vanes made of galvanised sheet steel, polymer or aluminium. Low-vibration operation thanks to dynamic balancing in accordance with DIN ISO 1940 T.1 – grade 6.3.

■ Protection against contact

All devices are delivered with a protective grille on the exhaust air side according to DIN EN ISO 13857 as standard. If the system does not provide any protection against contact with rotating parts on the intake side, a protective grille is also to be attached here (accessory).

■ Air flow temperatures

The devices can be used in the range of -20 °C to at least $+70\text{ °C}$. Types with explosion protection are permitted for use up to a maximum of $+40\text{ °C}$. The upper limit is type-specific and is shown in the table on the product page. If the fan is speed-controlled, the value is to be reduced by around 10 °C .

■ Speed control

Information on this can be found on the product pages and under the "General technical information".

■ Electrical connection

The supply feed can come from beneath via a cable bushing in the base plate and from above (via the roof). It is to be connected without dismantling further parts on the exterior terminal box or override switch according to the attached circuit diagram.

■ Full motor protection

Information on this can be found on the product pages and under the "General technical product information".

■ Explosion protection

The types with explosion protection are in line with equipment group II, category 3G for use in zone 2 in accordance with Directive 2014/34/EU. The types with explosion protection and diameters from 315 to 560 mm are in line with equipment group II, category 2G for use in zone 1 in accordance with Directive 2014/34/EU.

The EU conformity declaration enclosed with every fan attests to the design according to DIN EN 60079-0 / VDE 0170-1 and DIN EN 60079-7 / VDE 0170-6. The degree of protection is in line with Ex e 2G. The temperature class is marked on the type page.

The exterior terminal box also satisfies Ex e 2G. Further statements can be found in the sections "Project planning instructions for explosion protection" and "General technical information". Larger air gaps, which can reduce performance by up to 10%, are required under EU Directive 2014/34/EU.

Information	Page
Information for planning, acoustics, explosion prot.	10 on General techn. information,
speed control	15 on

■ **RD EC range**

EC centrifugal fans with horizontal discharge for exhaust air operation.

■ **Design**

Robust design, largely corrosion-resistant and weather-resistant. Base plate made of galvanised sheet steel. Rain hood and protective grille made of galvanised sheet steel, for nominal diameter 225 – 400 mm made of aluminium. Quiet operation thanks to vibration-dampening motor suspension. Flat construction design. Rain hood with cover extending far above and below the fan offers effective protection against rainfall.

■ **Motor**

External rotor motors with degree of protection IP 44 and in insulation class B according to DIN EN 60034 / VDE 0530 and DIN EN 60335-1 / VDE 0700-1 are used for the AC types. The winding is also impregnated for moisture resistance. The low-maintenance ball bearings have enough lubricant for a service life of approximately 30.000 hours of operation. The motor and impeller are dynamically balanced as a single unit in accordance with DIN ISO 1940 T.1 – grade 6.3 for low-vibration operations.

■ **Impellers**

Centrifugal impellers with optimised efficiency and high power density and backwards curved vanes made of stainless sheet steel. Pressed on to the motor and dynamically balanced as a single unit.

■ **Protection against contact**

All devices are delivered with a protective grille on the exhaust air side according to DIN EN ISO 13857 as standard. If the system does not provide any protection against contact with rotating parts on the intake side, a guard is also to be attached here (accessory).

■ **Air flow temperatures**

The range of application for EC types is up to +40 °C. At higher temperatures, the built-in thermal fuses will be activated.

■ **Speed control**

The speed can be controlled in all EC types using a potentiometer, universal control system or electronic differential pressure/temperature controller (in conjunction with NG24 power supply unit, accessory). Sample power levels are shown in the characteristic curve. Suitable

RD EC



control units are listed in the type table. Further information on this is available in the "General technical information".

■ **Electrical connection**

The supply feed can come from beneath via a cable bushing in the base plate and from above (via the roof). The connection is to be made at the terminal box (degree of protection IP 55) located under the rain hood. An additional control line is required for EC types.

■ **Full motor protection**

The EC motors are protected by the built-in electronic temperature monitoring system.

■ **Noise**

Information on this can be found on the product pages and under the "General technical product information".

■ **DV EC range**

Centrifugal fans with a diagonal discharge for exhaust air operation. With EC motor technology for energy-saving use and minimum operating costs.

■ **Design**

Extremely weather-resistant EC roof fan with polymer design in a comprehensive area of applications. Aerodynamically designed polymer casing made of grey polypropylene with diagonal discharge. Air flow temperatures from –30 to +60 °C.

■ **Motor**

Energy-efficient EC external rotor motor with degree of protection IP 54. Optimised efficiency also with speed control for low operating costs. Seamless speed control. Low-maintenance and interference-free, ball bearing mounted.

■ **Impellers**

Diagonal aluminium impeller. The motor impeller unit is dynamically balanced for quiet operation.

■ **Protection against contact**

All devices are delivered with a protective grille on the exhaust air side according to DIN EN ISO 13857 as standard. If the

DV EC



system does not provide any protection against contact with rotating parts on the intake side, a protective grille is also to be attached here (accessory).

■ **Air flow temperatures**

Air flow temperatures from –30 to +60 °C.

■ **Speed control**

■ **DV EC Pro**

□ Ideal as a central exhaust air fan for multi-storey apartment buildings according to DIN 18017-3.

□ In conjunction with further components (accessories), a complete central ventilation system can be established according to DIN 18017-3 with demand-based ventilation.

□ Built-in pressure regulation for air flow volume stabilising in adjacent rooms by automatic speed adjustment with an almost constant, high degree of efficiency.

□ Integrated pressure sensor 0–300 Pa.

□ Short amortisation period thanks to high energy savings.

□ Operating data settings at the four potentiometers integrated in the control to set the desired operating point on-site.

□ Built-in bus interface (RS 485) as standard for connecting to a PC/laptop in conjunction with the interface (accessories).

■ **DV EC Eco**

□ The speed can be controlled in all EC types using a potentiometer, universal control system or electronic differential pressure / temperature controller (in conjunction with NG24 power supply unit, accessory). Sample power levels are shown in the characteristic curve. Suitable control units are listed in the type table. Further information on this is available in the "General technical information".

■ **Electrical connection**

Polymer operating switch (degree of protection IP 65) as standard, fitted on the outside of the casing.
Supply voltage 1 ph., 230 V, 50 Hz.

■ **Full motor protection**

Integrated electronic temperature monitoring for EC motor and electronics.

■ **Noise**

Information on this can be found on the product pages and under the "General technical product information".

■ **Base frame construction, installation, delivery**

Delivered ready for installation in individual shipping boxes or crates. The fans are quick and easy to install, they are equally suited to installation on flat, gable, monopitch, saw-tooth, angular, trapezoidal or arched roofs. In principle, the base frames are always to be designed such that the fan base plate lies flat and level.

We recommend the use of flat, slanted or wavy roof base frames available in our accessories range. This keeps the costs for planning, design and installation to a minimum. The base frames can also be made on-site, for example from concrete, wood, bricks or the like. However, a level and flat surface is just as vital as proper sealing at the roof edge.

After it is placed, the base plate is connected to the base frame with four screws. Helios flat roof base frames and base frame attenuators with nominal diameters 180 – 450 mm have a folding mechanism that is advantageous when it comes to cleaning and inspections.

For on-site base frames, spacer discs are to be used to balance out any unevenness. A gap arising between the base plate and base frame is to be sealed off with elastic or similar material. After the screws are tightened equally, check the impeller's freedom of movement.

By combining the parameters of static pressure increase Δp_{fa} , air flow volume V , R.P.M. min^{-1} , sound level at 4 m and impeller-diameter DN mm, the following table facilitates the selection of roof fans \varnothing 180 to 710.

Diameter	R.P.M.	Sound pressure intake	Air flow volume V m^3/h in relation to static pressure = N / m^2 = freely available pressure												
mm	min^{-1}	L_{PA} dB(A)	(Δp_{fa}) in Pa												
		at 4m													
Series VD/VDR/RD			0	50	100	150	200	250	300	350	400	500	600	700	800
180	2300	46	2300	46	550	500	430	380	300	240	150				
200	2300	53	1050	960	920	860	760	700	560	460	300				
200	1400	37	550	430	280										
225	2700	56	1300	1240	1180	1120	1060	1000	920	840	760	520			
225	1400	42	650	550	400										
250	1400	43	920	800	640	440									
315	1400	51	2900	2700	2500	2350	2100	1800	1500	700					
355	1400	54	4500	4300	4000	3800	3500	3250	3000	2500	1500				
400	1400	57	6000	5800	5400	5100	4800	4500	4200	3800	3400	2000			
400	900	49	4000	3600	3200	2700	2000	500							
450	1400	62	8600	8400	8000	7800	7500	7300	6900	6700	6400	5500	4200	2200	
			0	100	200	300	400	500	600	700	800	900	1000	1100	1200
500	1400	65	12000	11300	10400	9600	9000	8200	7200	5600	3500				
500	900	56	7200	6300	5050	3300									
560	1400	69	14200	13500	12800	12000	11200	10400	9600	8500	7400	6000	4700	3200	
560	900	60	9300	8400	7500	6400	4800								
630	900	66	15000	13800	12600	11000	9100	5600							
710	900	66	26500	24800	23000	21200	18800	16500	14700	11200	7500				

By combining the parameters of static pressure increase Δp_{fa} , air flow volume V , R.P.M. min^{-1} , sound level at 4 m and impeller-diameter DN mm, the following table facilitates the selection of roof fans \varnothing 200 to 450.

Diameter mm	R.P.M. min^{-1}	Sound pressure intake L_{PA} dB(A) at 4 m	Air flow volume V m^3/h in relation to static pressure = N / m^2 = freely available pressure (Δp_{fa}) in Pa																
			0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Series DV EC – diagonal discharge																			
200	1810	50	2010	1830	1660	1480	1270	1030	720	350									
250	1640	55	3700	3480	3210	2930	2700	2420	2090	1690	1240	240							
400 A	1020	48	4070	3660	3220	2720	2200	1610	980										
400 B	1425	60	5650	5470	5100	4760	4480	4150	3800	3440	3000	1870							
Series RD EC – horizontal discharge																			
225	1850	51	2200	2060	1910	1750	1580	1390	1060										
315	1260	50	4320	3970	3730	3440	3000	2290	1000										
400	1470	57	6670	6340	6000	5630	5320	5000	4650	4310	3920	3350	2590	700					
450	1180	53	8360	8000	7480	6970	6440	5970	5480	5000	4390	1100							

Centrifugal roof fan RD

Horizontal discharge

Affordable price-performance relationship. Horizontally discharging roof fan with efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.



EC roof fans DV

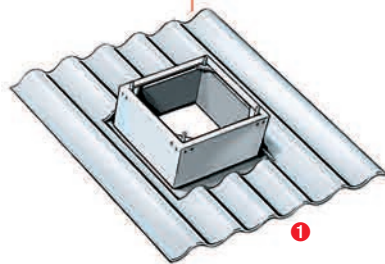
Diagonal discharge

With energy-saving EC motor technology for lowest operating costs. Extremely weather-resistant, in polymer design. Optional in Pro version with integrated pressure control for maintaining constant air flow volume (without illustration).

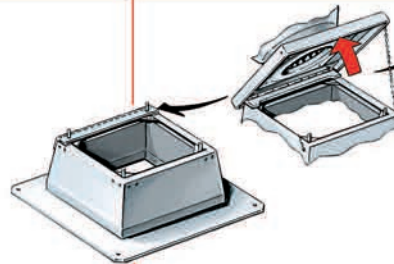
Centrifugal roof fans VD and VDR

Vertical discharge

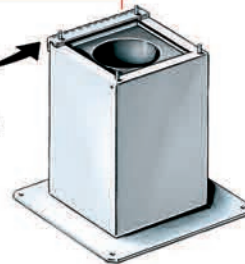
Affordable price-performance relationship. Vertically discharging roof fan with efficiency-optimised aluminium casing or casing made from galvanised sheet steel and newly developed high-performance centrifugal impeller.



1



2



3

Backdraught shutter

Prevents undesired air exchange, energy loss and inflow of cold air.

– Automatic RVS



– Motorised RVM

With fitted spring return motor (outside air flow).

Flange ring FR
Made from galvanised sheet steel. For intake ducting connection.



Flanged flexible connector STS

Prevents structure-borne sound transmission to intake ducting.

Commercial ducting

Available from all Helios stockists. Standard sizes fit the Helios components.

Inlet bell mouth with guard ASD-SGD

Optimal design with large inlet radius and flange.



Guard SG

Spot-welded steel wire, 8 mm mesh size, galvanised.



1 Soaker sheet WDS

For installation of roof fans and roof cowls on corrugated roofs. Weather resistant and corrosion-free made of glass fibre reinforced polyester.

Sloping roof base SDS (S. 486)

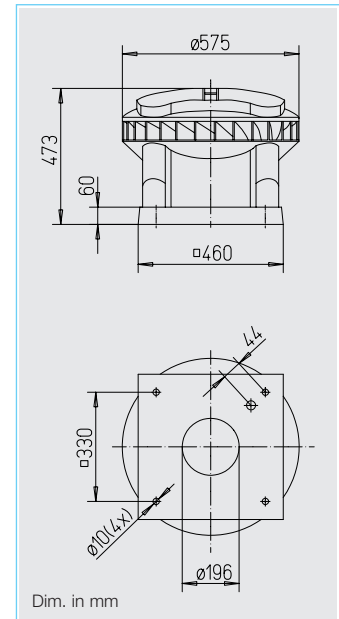
For installation of roof fans/roof cowls on pitched or sloping roofs. Inner surface lined with sound and thermal insulation.

2 Flat roof base FDS

For low priced and efficient mounting of roof fans and roof cowls on flat roofs. In corrosion-resistant glass fibre reinforced polyester or galvanised sheet steel. Nominal size 180 to 450 with hinged mechanism for simple inspection and cleaning.

3 Base attenuator SSD

For intake-side sound insulation. All metal parts made of galvanised steel. Incl. fixing screws, profile rubber and sealing between base and base plate. Nominal size 180 to 450 mm with hinged mechanism and foamed material core with free cross-section. Allows access to ducting or ventilation system.



■ **Extremely weather-proof diagonally discharging EC-roof fan from polymer for an extensive area of application.**

■ **Similarities DV EC Pro and DV EC Eco**

□ **Casing**
Aerodynamically designed casing from high-quality polypropylene in grey with diagonal air discharge direction. Air flow temperatures from -30 to +60 °C.

□ **Impeller**
Diagonal impeller made from aluminium, the motor-impeller unit is dynamically balanced for low-noise operation.

□ **Motor**
Optimised efficiency also with speed control for low operating costs. Stepless speed control. Ball bearing mounted, maintenance-free and interference-free.

□ **Motor protection**
Integrated electronic temperature monitoring for EC-motor and electronics.

□ **Electrical connection**
Standard external terminal box (protection to IP 65) on the casing. Connection voltage single-phase, 230 V, 50 Hz.

□ **Installation**
Horizontal alignment on the roof. With pitched roofs, a suitable upstand must be constructed, to prevent water entry. Extensive accessories facilitate the assembly of the fan to the ducting system in the building.

■ **Sound levels**
Total sound power levels and the spectrum figures in dB(A) are given for:
- Sound power intake
- Sound power exhaust
In the table below as well as underneath the performance curve you can find additionally the sound pressure level at 4 m (free field conditions).

■ **Specification DV EC Pro**

- **Speed control**
 - Ideal as a central exhaust air fan for multi-storey building DIN 18017-3.
 - In connection with further components (accessories) a complete central ventilation system can be developed according to DIN 18017-3 with ventilation according to need.
 - Integrated pressure control for air flow volume stabilisation in the connected rooms by automatic speed adaptation with nearly consistently good efficiency.
 - Integrated pressure sensor 0-300 Pa.
 - Short payback period due to high energy conservation.
 - Four potentiometers integrated in the control permit an adjustment to the operating data. The desired operating point can be set directly on site.
 - Integrate serial Bus port (RS 485) for connection of a PC / laptop in combination with the interface (accessories).

■ **Specification DV EC Eco**

- **Speed control**
 - Stepless speed control with a speed potentiometer PU/PA 10 (accessories, see table below).
 - In connection with the universal control system EUR EC or electronic pressure/temperature controllers EDR/ETR (accessories, see table below), the fan can be used for steplessly controlling differential pressure, differential temperature or flow velocity. The performance stages are shown in the characteristic curves.

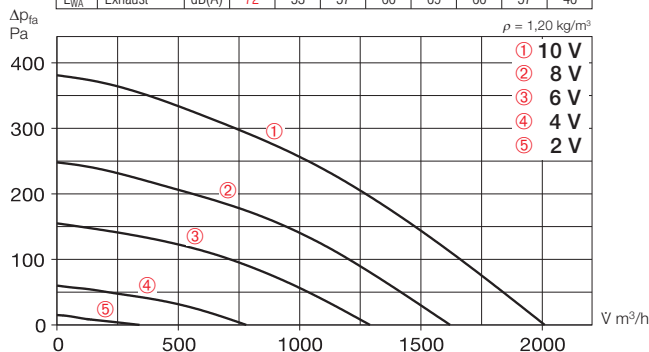
Type	Ref. no.	Maximum R.P.M. approx.	Air flow volume (FID)	Sound pressure case breakout	Motor power at maximum speed		Wiring diagram	max. air flow temperature	Weight net approx.	Universal control system		Speed-potentiometer flush surface			
					kW	A				Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Type DV EC Pro, single phase motor, 230 V, 50/60 Hz, EC motor, IP 54															
DV EC 200 Pro	8385	1810	2010	52	0.18	1.38	863.1	60	17.0	—	—	—	—	—	—
Type DV EC Eco, single phase motor, 230 V, 50/60 Hz, EC motor, IP 54															
DV EC 200 Eco	8320	1810	2010	52	0.18	1.38	991	60	17.0	EUR EC ¹⁾²⁾	1347	PU 10 ³⁾	1734	PA 10 ³⁾	1735

1) several EC fans can normally be connected

2) alternative electronic pressure/temperature controller (EDR/ETR, No. 1437/1438) in connection with the power supply NG24, No. 1439, see accessories

DV EC 200

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA}	Intake		70	54	64	64	65	61	55	46
L _{WA}	Exhaust		72	53	57	66	69	66	57	46



Voltage V	n min ⁻¹	V m ³ /h	P W	I A	Lp dB(A)	SFP kW/m ² /s
10	1810	2010	180	1,38	52	—
8	1480	1620	108	0,90	47	—
6	1200	1290	60	0,54	41	—
4	720	780	21	0,20	31	—

Accessory details Page

Roof mounting accessories	485
Ventilation grilles	487 on
Extract elements	500 on
Intake elements	512 on
Fire protection elements	516 on
Universal control system, electronic controller, speed-potentiometer	539 on

Accessories for all types

Hinged base attenuator

Type SSD 200 Ref. no. 5290

With folding mechanism for easy inspection and cleaning.

Flange connecting plate

Type FAP 200 Ref. no. 8382

Made from galvanised sheet steel. Makes the connection of the duct system plus accessories to the roof fans DV EC possible, if no base attenuator SSD is used.

Flat roof base

Type FDS 200 Ref. no. 1378

With folding mechanism for easy inspection and cleaning.

Counterflange

Type DFR 200 Ref. no. 1201

Made from galvanised sheet steel, for intake duct connections.

Flanged flexible connector

Type DSTS 200 Ref. no. 1218

To reduce vibration transmission in intake air ducting. Flanges made of galvanised steel.

Backdraught shutter

Type DRVS 200 Ref. no. 2591

Automatic, made of galvanised sheet steel. To prevent cold air backdraught when the fan is not in use. For vertical air flow bottom-up position.

Accessories for DV EC Pro

Interface

Type ZLS-IF Ref. no. 8391

Interface for the start-up and/or control of the fan in connection with a PC/Laptop. Power supply unit, adaptor cable and software included.

Electronic timer module

Type ZLS-ZU 31 Ref. no. 8388

Allows parallel operation of max. 31 DV EC roof fans. The rocker main switch activates the timer module.

The day and night regulation is carried out by adjustment in the display. Main switch 230 V, 50 Hz included.

Accessories for DV EC Eco

Universal control system

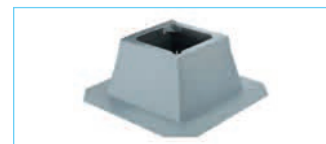
Type EUR EC Ref. no. 1347

For stepless control or adjustment of single- and 3-phase EC-fans with an input control signal of 0–10 V DC.

Speed potentiometer

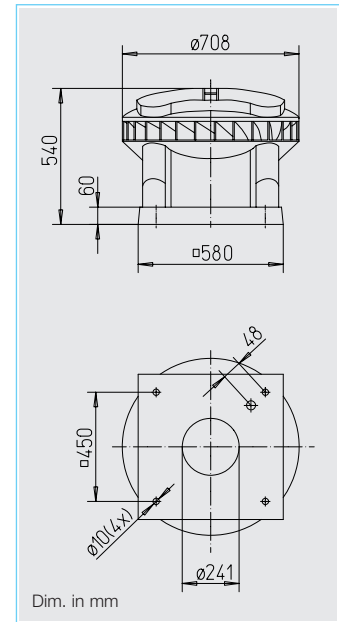
Type PU/PA 10 see type table

For direct control or nominal value preset of EC-fans with potentiometer input.



Timer for controlling up to 31 fans	
Type	Ref. no.
ZLS-ZU 31	8388
—	—

3) without LED power supply



■ **Extremely weather-proof diagonally discharging EC-roof fan from polymer for an extensive area of application.**

■ **Similarities**
DV EC Pro and DV EC Eco

□ **Casing**
Aerodynamically designed casing from high-quality polypropylene in grey with diagonal air discharge direction. Air flow temperatures from -30 to +60 °C.

□ **Impeller**
Diagonal impeller made from aluminium, the motor-impeller unit is dynamically balanced for low-noise operation.

□ **Motor**
Optimised efficiency also with speed control for low operating costs. Stepless speed control. Ball bearing mounted, maintenance-free and interference-free.

□ **Motor protection**
Integrated electronic temperature monitoring for EC-motor and electronics.

□ **Electrical connection**
Standard external terminal box (protection to IP 65) on the casing. Connection voltage single-phase, 230 V, 50 Hz.

□ **Installation**
Horizontal alignment on the roof. With pitched roofs, a suitable upstand must be constructed, to prevent water entry. Extensive accessories facilitate the assembly of the fan to the ducting system in the building.

■ **Sound levels**
Total sound power levels and the spectrum figures in dB(A) are given for:
- Sound power intake
- Sound power exhaust
In the table below as well as underneath the performance curve you can find additionally the sound pressure level at 4 m (free field conditions).

■ **Specification**
DV EC Pro

- **Speed control**
 - Ideal as a central exhaust air fan for multi-storey building DIN 18017-3.
 - In connection with further components (accessories) a complete central ventilation system can be developed according to DIN 18017-3 with ventilation according to need.
 - Integrated pressure control for air flow volume stabilisation in the connected rooms by automatic speed adaptation with nearly consistently good efficiency.
 - Integrated pressure sensor 0-300 Pa.
 - Short payback period due to high energy conservation.
 - Four potentiometers integrated in the control permit an adjustment to the operating data. The desired operating point can be set directly on site.
 - Integrate serial Bus port (RS 485) for connection of a PC / laptop in combination with the interface (accessories).

■ **Specification**
DV EC Eco

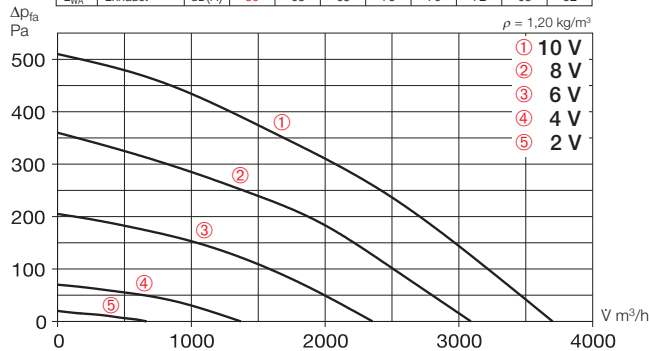
- **Speed control**
 - Stepless speed control with a speed potentiometer PU/PA 10 (accessories, see table below).
 - In connection with the universal control system EUR EC or electronic pressure/temperature controllers EDR/ETR (accessories, see table below), the fan can be used for steplessly controlling differential pressure, differential temperature or flow velocity. The performance stages are shown in the characteristic curves.

Type	Ref. no.	Maximum R.P.M. approx.	Air flow volume (FID)	Sound pressure	Motor power at maximum speed		Wiring diagram	max. air flow temperature	Weight net approx.	Universal control system		Speed-potentiometer			
					kW	A				Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Type DV EC Pro, single phase motor, 230 V, 50/60 Hz, EC motor, IP 54															
DV EC 250 Pro	8386	1640	3700	60	0.41	1.78	863.1	60	23.0	—	—	—	—	—	—
Type DV EC Eco, single phase motor, 230 V, 50/60 Hz, EC motor, IP 54															
DV EC 250 Eco	8322	1640	3700	60	0.41	1.78	991	60	23.0	EUR EC ¹⁾²⁾	1347	PU 10 ³⁾	1734	PA 10 ³⁾	1735

1) several EC fans can normally be connected 2) alternative electronic pressure/temperature controller (EDR/ETR, No. 1437/1438) in connection with the power supply NG24, No. 1439, see accessories

DV EC 250

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA}	Intake	dB(A)	75	60	64	70	69	67	61	52
L _{WA}	Exhaust	dB(A)	80	63	65	75	76	72	63	52



Voltage V	n min ⁻¹	V m ³ /h	P W	I A	Lp dB(A)	SFP kW/m ² /s
10	1640	3700	412	1,78	60	—
8	1380	3100	264	1,14	55	—
6	1100	2350	138	0,60	49	—
4	650	1370	40	0,20	36	—

Accessory details Page

Roof mounting accessories	485
Ventilation grilles	487 on
Extract elements	500 on
Intake elements	512 on
Fire protection elements	516 on
Universal control system, electronic controller, speed-potentiometer	539 on

Accessories for all types

Hinged base attenuator

Type SSD 250 Ref. no. 5292

With folding mechanism for easy inspection and cleaning.

Flange connecting plate

Type FAP 250 Ref. no. 8383

Made from galvanised sheet steel. Makes the connection of the duct system plus accessories to the roof fans DV EC possible, if no base attenuator SSD is used.

Flat roof base

Type FDS 250 Ref. no. 1379

With folding mechanism for easy inspection and cleaning.

Counterflange

Type FR 250 Ref. no. 1203

Made from galvanised sheet steel, for intake duct connections.

Flanged flexible connector

Type STS 250 Ref. no. 1220

To reduce vibration transmission in intake air ducting. Flanges made of galvanised steel.

Backdraught shutter

Type RVS 250 Ref. no. 2592

Automatic, made of galvanised sheet steel. To prevent cold air backdraught when the fan is not in use. For vertical air flow bottom-up position.

Accessories for DV EC Pro

Interface

Type ZLS-IF Ref. no. 8391

Interface for the start-up and/or control of the fan in connection with a PC/Laptop. Power supply unit, adaptor cable and software included.

Electronic timer module

Type ZLS-ZU 31 Ref. no. 8388

Allows parallel operation of max. 31 DV EC roof fans. The rocker main switch activates the timer module.

The day and night regulation is carried out by adjustment in the display. Main switch 230 V, 50 Hz included.

Accessories for DV EC Eco

Universal control system

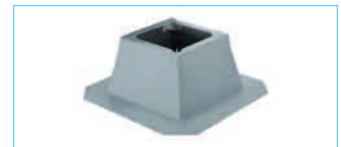
Type EUR EC Ref. no. 1347

For stepless control or adjustment of single- and 3-phase EC-fans with an input control signal of 0–10 V DC.

Speed potentiometer

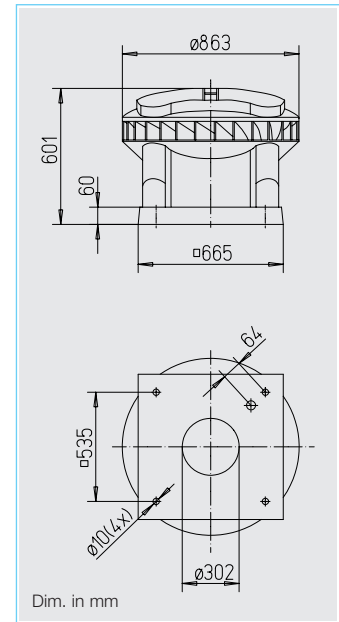
Type PU/PA 10 see type table

For direct control or nominal value preset of EC-fans with potentiometer input.



Timer for controlling up to 31 fans	
Type	Ref. no.
ZLS-ZU 31	8388
—	—

3) without LED power supply



45% Saving*
* with speed control

■ **Extremely weather-proof diagonally discharging EC-roof fan from polymer for an extensive area of application.**

■ **Similarities DV EC Pro and DV EC Eco**

□ **Casing**
Aerodynamically designed casing from high-quality polypropylene in grey with diagonal air discharge direction. Air flow temperatures from -30 to +60 °C.

□ **Impeller**
Diagonal impeller made from aluminium, the motor-impeller unit is dynamically balanced for low-noise operation.

□ **Motor**
Optimised efficiency also with speed control for low operating costs. Stepless speed control. Ball bearing mounted, maintenance-free and interference-free.

□ **Motor protection**
Integrated electronic temperature monitoring for EC-motor and electronics.

□ **Electrical connection**
Standard external terminal box (protection to IP 65) on the casing. Connection voltage single-phase, 230 V, 50 Hz.

□ **Installation**
Horizontal alignment on the roof. With pitched roofs, a suitable upstand must be constructed, to prevent water entry. Extensive accessories facilitate the assembly of the fan to the ducting system in the building.

■ **Sound levels**
Total sound power levels and the spectrum figures in dB(A) are given for:
- Sound power intake
- Sound power exhaust
In the table below as well as underneath the performance curve you can find additionally the sound pressure level at 4 m (free field conditions).

■ **Specification DV EC Pro**

- **Speed control**
 - Ideal as a central exhaust air fan for multi-storey building DIN 18017-3.
 - In connection with further components (accessories) a complete central ventilation system can be developed according to DIN 18017-3 with ventilation according to need.
 - Integrated pressure control for air flow volume stabilisation in the connected rooms by automatic speed adaptation with nearly consistently good efficiency.
 - Integrated pressure sensor 0-300 Pa.
 - Short payback period due to high energy conservation.
 - Four potentiometers integrated in the control permit an adjustment to the operating data. The desired operating point can be set directly on site.
 - Integrate serial Bus port (RS 485) for connection of a PC / laptop in combination with the interface (accessories).

■ **Specification DV EC Eco**

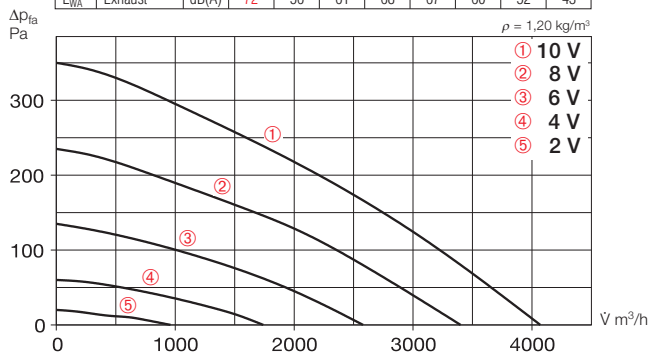
- **Speed control**
 - Stepless speed control with a speed potentiometer PU/PA 10 (accessories, see table below).
 - In connection with the universal control system EUR EC or electronic pressure/temperature controllers EDR/ETR (accessories, see table below), the fan can be used for steplessly controlling differential pressure, differential temperature or flow velocity. The performance stages are shown in the characteristic curves.

Type	Ref. no.	Maximum R.P.M. approx.	Air flow volume (FID)	Sound pressure	Motor power at maximum speed		Wiring diagram	max. air flow temperature	Weight net approx.	Universal control system		Speed-potentiometer flush			
					kW	A				Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Type DV EC Pro, single phase motor, 230 V, 50/60 Hz, EC motor, IP 54															
DV EC 400 A Pro	8387	1020	4070	51	0.30	1.33	863.1	60	33.0	—	—	—	—	—	—
DV EC 400 B Pro	8389	1425	5650	65	0.75	3.32	863.1	60	35.0	—	—	—	—	—	—
Type DV EC Eco, single phase motor, 230 V, 50/60 Hz, EC motor, IP 54															
DV EC 400 A Eco	8324	1020	4070	51	0.30	1.33	991	60	33.0	EUR EC ^{1) 2)}	1347	PU 10 ³⁾	1734	PA 10 ³⁾	1735
DV EC 400 B Eco	8326	1425	5650	65	0.75	3.32	991	60	35.0	EUR EC ^{1) 2)}	1347	PU 10 ³⁾	1734	PA 10 ³⁾	1735

1) several EC fans can normally be connected 2) alternative electronic pressure/temperature controller (EDR/ETR, No. 1437/1438) in connection with the power supply NG24, No. 1439, see accessories

DV EC 400 A

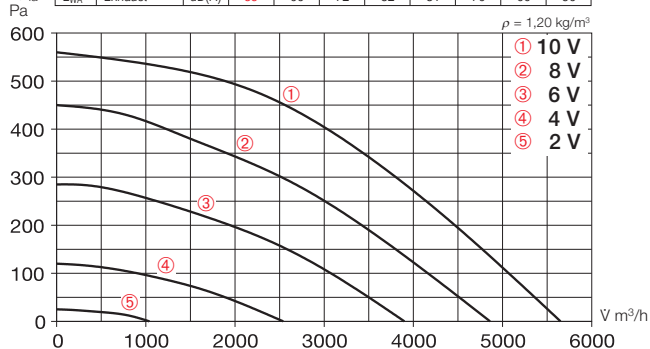
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA}	Intake		68	55	62	63	63	58	51	44
L _{WA}	Exhaust		72	56	61	68	67	60	52	43



Voltage V	n min ⁻¹	\dot{V} m ³ /h	P W	I A	L _p dB(A)	SFP kW/m ² /s
10	1020	4070	303	1,33	51	—
8	850	3400	176	0,77	46	—
6	650	2580	85	0,40	40	—
4	450	1740	33	0,20	31	—

DV EC 400 B

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA}	Intake		80	64	69	75	74	74	65	58
L _{WA}	Exhaust		85	66	72	82	81	76	66	56



Voltage V	n min ⁻¹	\dot{V} m ³ /h	P W	I A	L _p dB(A)	SFP kW/m ² /s
10	1425	5650	755	3,32	65	—
8	1225	4860	485	2,10	60	—
6	1000	3900	265	1,15	54	—
4	650	2540	90	0,40	43	—

Accessory details Page

Roof mounting accessories	485
Ventilation grilles	487 on
Extract elements	500 on
Intake elements	512 on
Fire protection elements	516 on
Universal control system, electronic controller, speed-potentiometer	539 on

Accessories for all types

Hinged base attenuator

Type SSD 400 Ref. no. 5291

With folding mechanism for easy inspection and cleaning.

Flange connecting plate

Type FAP 400 Ref. no. 8384

Made from galvanised sheet steel. Makes the connection of the duct system plus accessories to the roof fans DV EC possible, if no base attenuator SSD is used.

Flat roof base

Type FDS 400 Ref. no. 1380

With folding mechanism for easy inspection and cleaning.

Counterflange

Type FR 400 Ref. no. 1206

Made from galvanised sheet steel, for intake duct connections.

Flanged flexible connector

Type STS 400 Ref. no. 1223

To reduce vibration transmission in intake air ducting. Flanges made of galvanised steel.

Backdraught shutter

Type RVS 400 Ref. no. 2596

Automatic, made of galvanised sheet steel. To prevent cold air backdraught when the fan is not in use. For vertical air flow bottom-up position.

Accessories for DV EC Pro

Interface

Type ZLS-IF Ref. no. 8391

Interface for the start-up and/or control of the fan in connection with a PC/Laptop. Power supply unit, adaptor cable and software included.

Electronic timer module

Type ZLS-ZU 31 Ref. no. 8388

Allows parallel operation of max. 31 DV EC roof fans. The rocker main switch activates the timer module.

The day and night regulation is carried out by adjustment in the display. Main switch 230 V, 50 Hz included.

Accessories for DV EC Eco

Universal control system

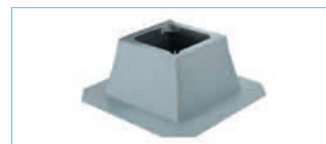
Type EUR EC Ref. no. 1347

For stepless control or adjustment of single- and 3-phase EC-fans with an input control signal of 0–10 V DC.

Speed potentiometer

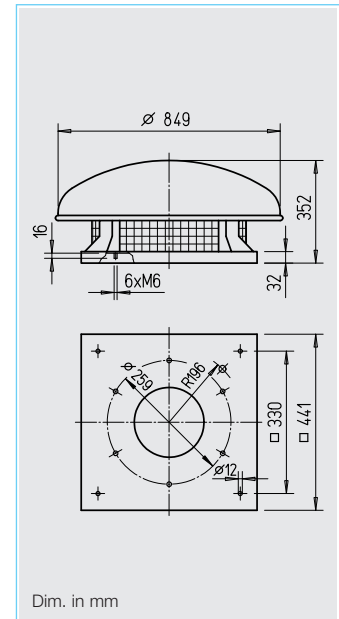
Type PU/PA 10 see type table

For direct control or nominal value preset of EC-fans with potentiometer input.



Timer for controlling up to 31 fans	
Type	Ref. no.
ZLS-ZU 31	8388
ZLS-ZU 31	8388
—	—
—	—

³⁾ without LED power supply



■ Specification

Centrifugal roof fan with horizontal discharge. Flat design with large overlaying rain cowl.

□ Casing

Base plate (with inlet cone) and other parts made of galvanised steel. Rain cowl and protection grille made of aluminium. Base plate with threaded bolt for connection of intake air accessories.

□ Impeller

High performance backward curved centrifugal impeller made of galvanised sheet steel, dynamically balanced with the motor unit.

□ Motor

Energy saving, speed controllable EC-external rotor motor with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and interference-free.

□ Motor protection

Integrated electronic temperature monitoring for EC-motor and electronics.

□ Electrical connection

Terminal box (protection to IP 55) located beneath rain cowl as standard.

□ Guard

On the outlet as standard, compliant with DIN EN ISO 13857.

□ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are specified in the performance curve.

□ Delivery

Fully assembled, ready to connect unit.

■ Sound levels

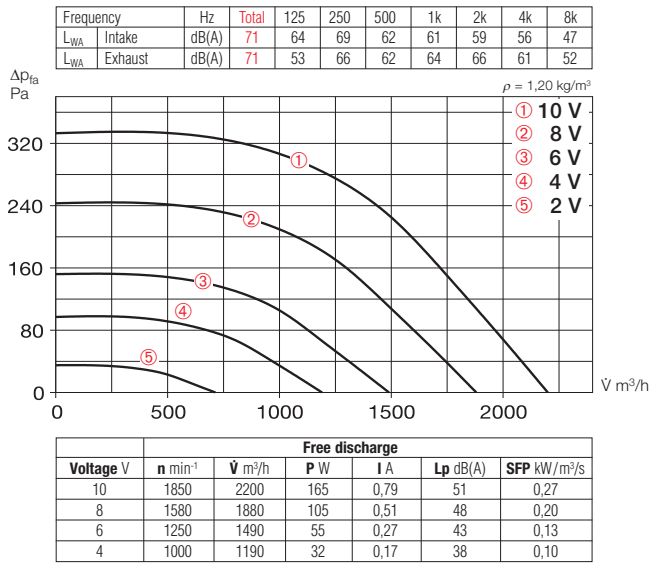
Total sound power levels and the spectrum figures in dB(A) are given for:

- Sound power intake
 - Sound power exhaust
- In the table below as well as underneath the performance curve you can find additionally the sound pressure level at 4 m (free field conditions).

Type	Ref. no.	Connection Ø	R.P.M.	Air flow volume (FID)	Sound press. case breakout	Motor power	Current	Wiring diagram	max. air flow temperature	Weight net approx.	Universal control system		Speed-potentiometer flush		Speed-potentiometer surface	
											Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Single phase motor, 230 V, 50/60 Hz, EC motor, IP 44																
RDW EC 225	1630	225	1850	2200	51	0.22	0.96	994	40	30.0	EUR EC¹⁾²⁾	1347	PU 10³⁾	1734	PA 10³⁾	1735

1) several EC fans can normally be connected 2) alternative electronic pressure/temperature controller (EDR/ETR, No. 1437/1438) in connection with the power supply NG24, No. 1439, see accessories 3) without LED power supply

RDW EC 225



Accessory details Page

Roof mounting accessories	485
Ventilation grilles	487 on
Extract elements	500 on
Intake elements	512 on
Fire protection elements	516 on
Universal control system, electronic controller, speed-potentiometer	539 on

Accessories

Hinged base attenuator

Type SSD 225 Ref. no. 5290

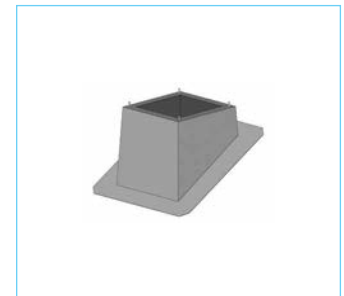
With folding mechanism for easy revision and cleaning. Average attenuation is 15 dB. For intake attenuation. All metal parts made of galvanised sheet steel.



Sloping roof base

Type SDS upon request

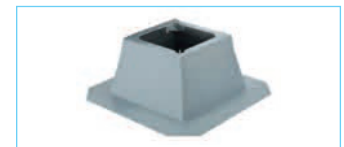
For profile and tiled roofs. Made from galvanised sheet steel, with sound and heat-insulated cladding on the inside. Roof pitch up to 45°.



Flat roof base

Type FDS 225 Ref. no. 1378

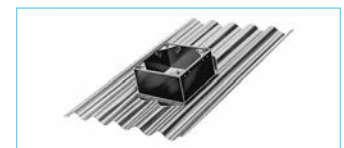
With folding mechanism for easy inspection and cleaning.



Corrugated roof base

Type WDS 225 Ref. no. 1560

For EC roof fans and roof cowls on corrugated roof, slope to 25° allowed. Made from corrosion resistant glass reinforced polyester (profile no. 5).



Counterflange

Type FR 225 Ref. no. 1201

Made from galvanised sheet steel, for intake duct connection.



Flanged flexible connector

Type STS 225 Ref. no. 1218

To reduce vibration transmission in intake air ducting. Flanges made of galvanised steel.



Backdraught shutter

Type RVS 225 Ref. no. 2591

Automatic, made from galvanised sheet steel, flaps made of aluminium. To prevent cold air backdraught when the fan is not in use. For vertical air flow bottom-up position.



Motorised backdraught shutter

Type RVM 225 Ref. no. 2575

As RVS, but with spring reversing motor, mounted outside the air flow and for vertical air flow in any direction.



Universal control system

Type EUR EC Ref. no. 1347

For stepless control or adjustment of single and three phase EC-fans with an input control signal of 0–10 V DC.

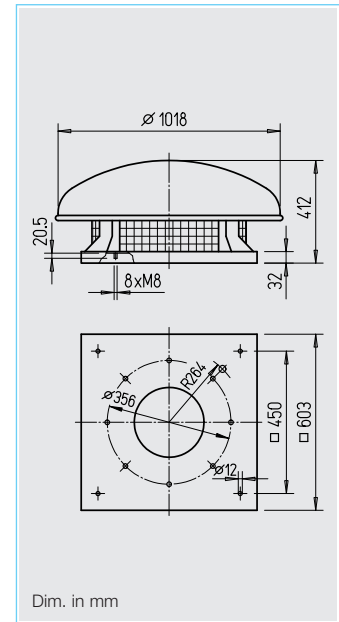
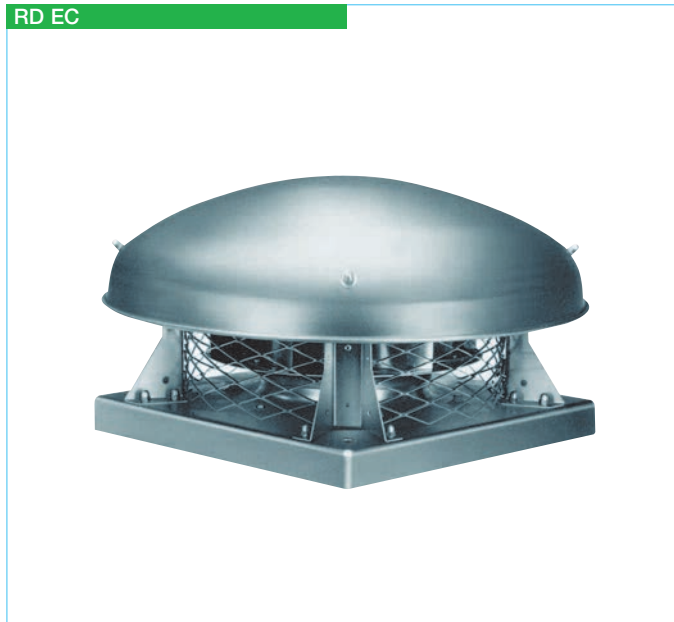


Speed-potentiometer

Type PU/PA 10 see type table

For direct control or nominal value preset of EC-fans with potentiometer input.





■ Specification

Centrifugal roof fan with horizontal discharge. Flat design with large overlaying rain cowl.

□ Casing

Base plate (with inlet cone) and other parts made of galvanised steel. Rain cowl and protection grille made of aluminium. Base plate with threaded bolt for connection of intake air accessories.

□ Impeller

High performance backward curved centrifugal impeller made of galvanised sheet steel, dynamically balanced with the motor unit.

□ Motor

Energy saving, speed controllable EC-external rotor motor with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and interference-free.

□ Motor protection

Integrated electronic temperature monitoring for EC-motor and electronics.

□ Electrical connection

Terminal box (protection to IP 55) located beneath rain cowl as standard.

□ Guard

On the outlet as standard, compliant with DIN EN ISO 13857.

□ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are specified in the performance curve.

□ Delivery

Fully assembled, ready to connect unit.

■ Sound levels

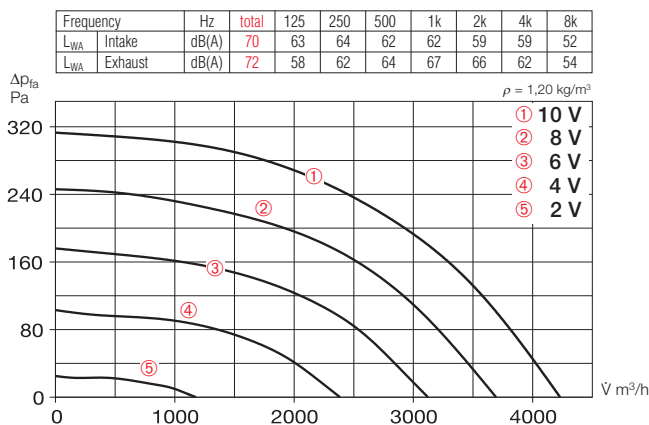
Total sound power levels and the spectrum figures in dB(A) are given for:

- Sound power intake
 - Sound power exhaust
- In the table below as well as underneath the performance curve you can find additionally the sound pressure level at 4 m (free field conditions).

Type	Ref. no.	Connection Ø	R.P.M.	Air flow volume (FID)	Sound press. case breakout	Motor power	Current	Wiring diagram	max. air flow temperature	Weight net approx.	Universal control system		Speed-potentiometer surface			
											Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Single phase motor, 230 V, 50/60 Hz, EC motor, IP 44																
RDW EC 315	1632	315	1260	4230	52	0.40	1.80	994	40	40.0	EUR EC¹⁾²⁾	1347	PU 10³⁾	1734	PA 10³⁾	1735

1) several EC fans can normally be connected 2) alternative electronic pressure/temperature controller (EDR/ETR, No. 1437/1438) in connection with the power supply NG24, No. 1439, see accessories 3) without LED power supply

RDW EC 315



Free discharge						
Voltage V	n min ⁻¹	V̇ m ³ /h	P W	I A	Lp dB(A)	SFP kW/m ² /s
10	1260	4230	310	1,50	52	0,26
8	1100	3690	210	1,02	49	0,21
6	930	3120	130	0,64	45	0,15
4	710	2380	60	0,33	40	0,10

Accessory details Page

Roof mounting accessories	485
Ventilation grilles	487 on
Extract elements	500 on
Intake elements	512 on
Fire protection elements	516 on
Universal control system, electronic controller, speed-potentiometer	539 on

Accessories

Hinged base attenuator

Type SSD 315 Ref. no. 5292

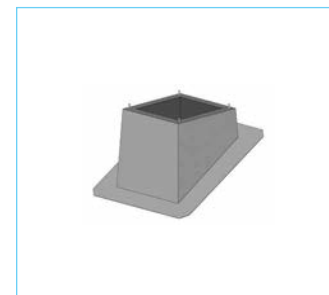
With folding mechanism for easy revision and cleaning. Average attenuation is 15 dB. For intake attenuation. All metal parts made of galvanised sheet steel.



Sloping roof base

Type SDS upon request

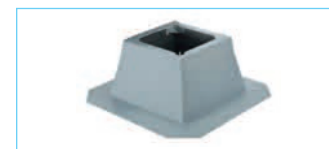
For profile and tiled roofs. Made from galvanised sheet steel, with sound and heat-insulated cladding on the inside. Roof pitch up to 45°.



Flat roof base

Type FDS 315 Ref. no. 1379

With folding mechanism for easy inspection and cleaning.



Corrugated roof base

Type WDS 315 Ref. no. 1561

For EC roof fans and roof cowls on corrugated roof, slope to 25° allowed. Made from corrosion resistant glass reinforced polyester (profile no. 5).



Counterflange

Type FR 315 Ref. no. 1204

Made from galvanised sheet steel, for intake duct connection.



Flanged flexible connector

Type STS 315 Ref. no. 1221

To reduce vibration transmission in intake air ducting. Flanges made of galvanised steel.



Backdraught shutter

Type RVS 315 Ref. no. 2594

Automatic, made from galvanised sheet steel, flaps made of aluminium. To prevent cold air backdraught when the fan is not in use. For vertical air flow bottom-up position.



Motorised backdraught shutter

Type RVM 315 Ref. no. 2578

As RVS, but with spring reversing motor, mounted outside the air flow and for vertical air flow in any direction.



Universal control system

Type EUR EC Ref. no. 1347

For stepless control or adjustment of single and three phase EC-fans with an input control signal of 0–10 V DC.

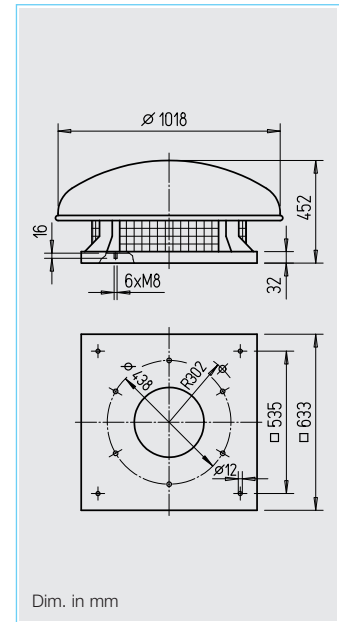
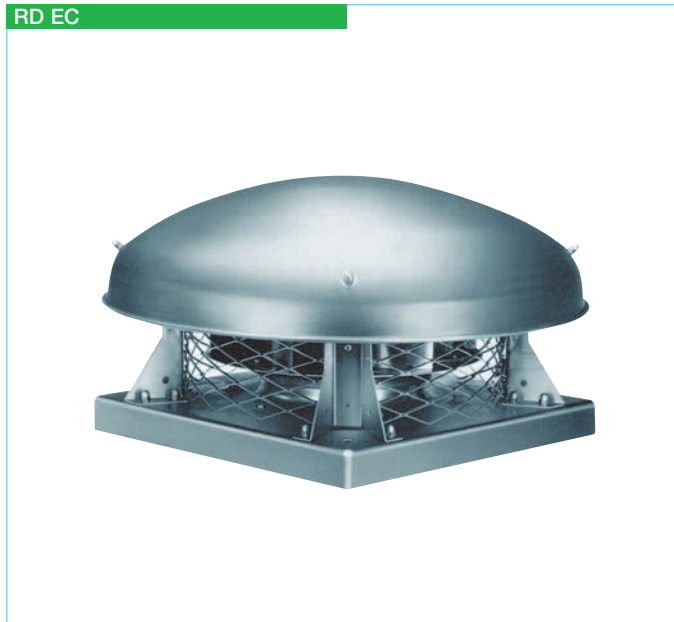


Speed-potentiometer

Type PU/PA 10 see type table

For direct control or nominal value preset of EC-fans with potentiometer input.





■ Specification

Centrifugal roof fan with horizontal discharge. Flat design with large overlaying rain cowl.

□ Casing

Base plate (with inlet cone) and other parts made of galvanised steel. Rain cowl and protection grille made of aluminium. Base plate with threaded bolt for connection of intake air accessories.

□ Impeller

High performance backward curved centrifugal impeller made of galvanised sheet steel, dynamically balanced with the motor unit.

□ Motor

Energy saving, speed controllable EC-external rotor motor with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and interference-free.

□ Motor protection

Integrated electronic temperature monitoring for EC-motor and electronics.

□ Electrical connection

Terminal box (protection to IP 55) located beneath rain cowl as standard.

□ Guard

On the outlet as standard, compliant with DIN EN ISO 13857.

□ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are specified in the performance curve.

□ Delivery

Fully assembled, ready to connect unit.

■ Sound levels

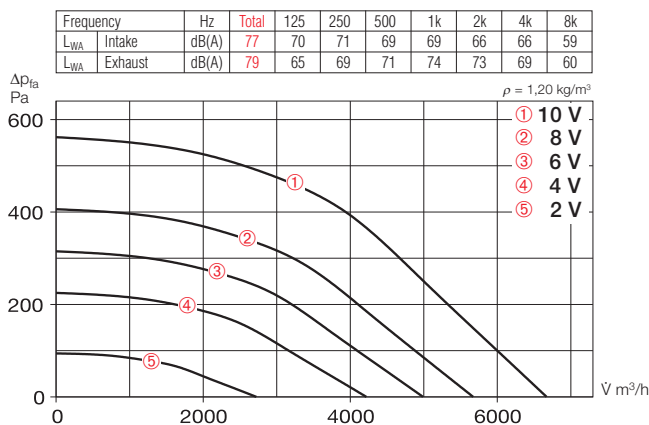
Total sound power levels and the spectrum figures in dB(A) are given for:

- Sound power intake
 - Sound power exhaust
- In the table below as well as underneath the performance curve you can find additionally the sound pressure level at 4 m (free field conditions).

Type	Ref. no.	Connection Ø	R.P.M.	Air flow volume (FID)	Sound press. case breakout	Motor power	Current	Wiring diagram	max. air flow temperature	Weight net approx.	Universal control system		Speed-potentiometer flush		Speed-potentiometer surface	
											Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Single phase motor, 230 V, 50/60 Hz, EC motor, IP 44																
RDW EC 400	1634	400	1470	6670	59	1.05	4.60	994	40	45.0	EUR EC¹⁾²⁾	1347	PU 10³⁾	1734	PA 10³⁾	1735

1) several EC fans can normally be connected 2) alternative electronic pressure/temperature controller (EDR/ETR, No. 1437/1438) in connection with the power supply NG24, No. 1439, see accessories 3) without LED power supply

RDW EC 400



Free discharge						
Voltage V	n min ⁻¹	V̇ m ³ /h	P W	I A	Lp dB(A)	SFP kW/m ² /s
10	1470	6670	800	3,86	59	0,43
8	1250	5670	495	2,40	56	0,32
6	1100	4990	340	1,64	53	0,25
4	930	4220	210	1,14	50	0,18

Accessory details Page

Roof mounting accessories	485
Ventilation grilles	487 on
Extract elements	500 on
Intake elements	512 on
Fire protection elements	516 on
Universal control system, electronic controller, speed-potentiometer	539 on

Accessories

Hinged base attenuator

Type SSD 400 Ref. no. 5291

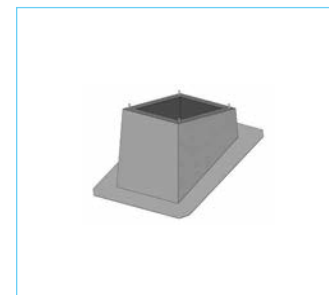
With folding mechanism for easy revision and cleaning. Average attenuation is 15 dB. For intake attenuation. All metal parts made of galvanised sheet steel.



Sloping roof base

Type SDS upon request

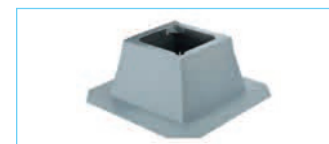
For profile and tiled roofs. Made from galvanised sheet steel, with sound and heat-insulated cladding on the inside. Roof pitch up to 45°.



Flat roof base

Type FDS 400 Ref. no. 1380

With folding mechanism for easy inspection and cleaning.



Corrugated roof base

Type WDS 400 Ref. no. 1562

For EC roof fans and roof cowls on corrugated roof, slope to 25° allowed. Made from corrosion resistant glass reinforced polyester (profile no. 5).



Counterflange

Type FR 400 Ref. no. 1206

Made from galvanised sheet steel, for intake duct connection.



Flanged flexible connector

Type STS 400 Ref. no. 1223

To reduce vibration transmission in intake air ducting. Flanges made of galvanised steel.



Backdraught shutter

Type RVS 400 Ref. no. 2596

Automatic, made from galvanised sheet steel, flaps made of aluminium. To prevent cold air backdraught when the fan is not in use. For vertical air flow bottom-up position.



Motorised backdraught shutter

Type RVM 400 Ref. no. 2580

As RVS, but with spring reversing motor, mounted outside the air flow and for vertical air flow in any direction.



Universal control system

Type EUR EC Ref. no. 1347

For stepless control or adjustment of single and three phase EC-fans with an input control signal of 0–10 V DC.

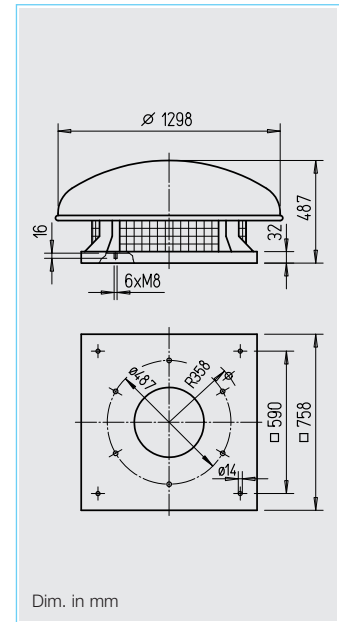
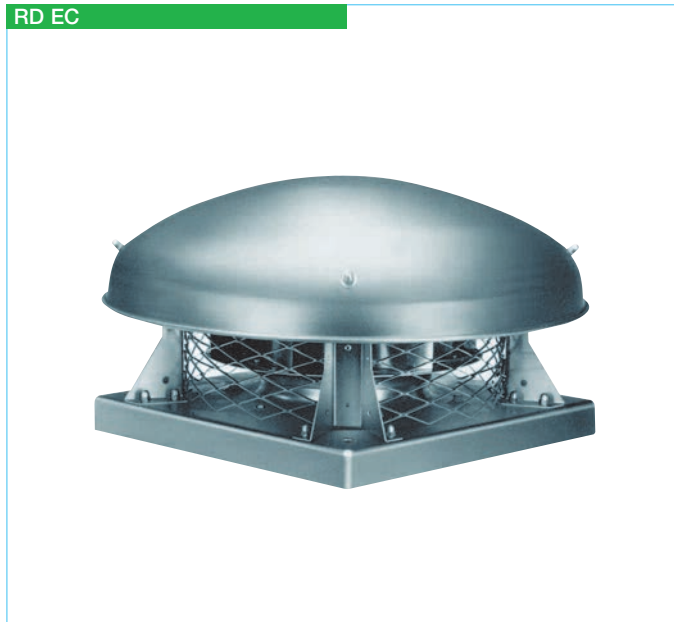


Speed-potentiometer

Type PU/PA 10 see type table

For direct control or nominal value preset of EC-fans with potentiometer input.





■ Specification

Centrifugal roof fan with horizontal discharge. Flat design with large overlaying rain cowl.

□ Casing

Base plate (with inlet cone) and other parts made of galvanised steel. Rain cowl and protection grille made of aluminium. Base plate with threaded bolt for connection of intake air accessories.

□ Impeller

High performance backward curved centrifugal impeller made of galvanised sheet steel, dynamically balanced with the motor unit.

□ Motor

Energy saving, speed controllable EC-external rotor motor with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and interference-free.

□ Motor protection

Integrated electronic temperature monitoring for EC-motor and electronics.

□ Electrical connection

Terminal box (protection to IP 55) located beneath rain cowl as standard.

□ Guard

On the outlet as standard, compliant with DIN EN ISO 13857.

□ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are specified in the performance curve.

□ Delivery

Fully assembled, ready to connect unit.

■ Sound levels

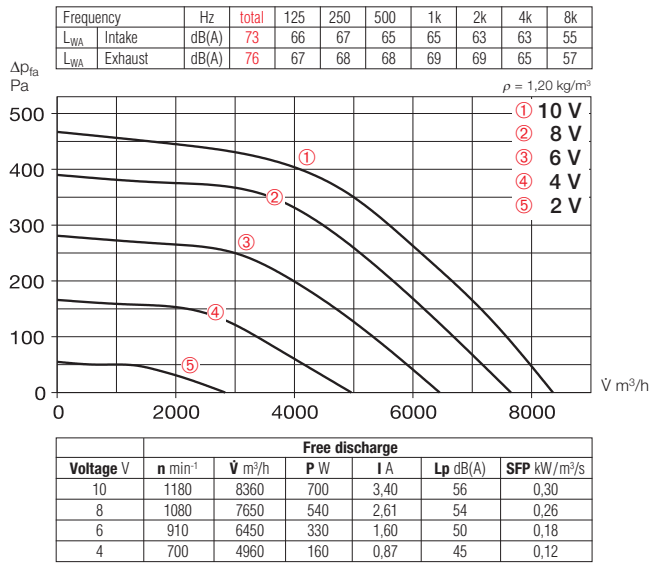
Total sound power levels and the spectrum figures in dB(A) are given for:

- Sound power intake
 - Sound power exhaust
- In the table below as well as underneath the performance curve you can find additionally the sound pressure level at 4 m (free field conditions).

Type	Ref. no.	Connection Ø	R.P.M.	Air flow volume (FID)	Sound press. case breakout	Motor power	Current	Wiring diagram	max. air flow temperature	Weight net approx.	Universal control system		Speed-potentiometer flush		Speed-potentiometer surface	
											Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Single phase motor, 230 V, 50/60 Hz, EC motor, IP 44																
RDW EC 450	1636	450	1180	8360	56	1.02	4.50	994	40	75.0	EUR EC¹⁾²⁾	1347	PU 10³⁾	1734	PA 10³⁾	1735

1) several EC fans can normally be connected 2) alternative electronic pressure/temperature controller (EDR/ETR, No. 1437/1438) in connection with the power supply NG24, No. 1439, see accessories 3) without LED power supply

RDW EC 450



Accessory details Page

Roof mounting accessories	485
Ventilation grilles	487 on
Extract elements	500 on
Intake elements	512 on
Fire protection elements	516 on
Universal control system, electronic controller, speed-potentiometer	539 on

Accessories

Hinged base attenuator

Type SSD 450 Ref. no. 5288

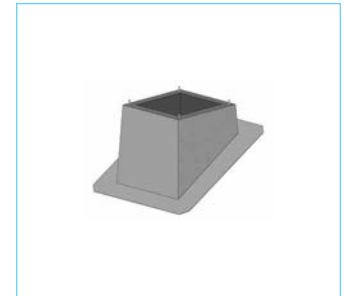
With folding mechanism for easy revision and cleaning. Average attenuation is 15 dB. For intake attenuation. All metal parts made of galvanised sheet steel.



Sloping roof base

Type SDS upon request

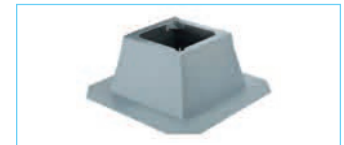
For profile and tiled roofs. Made from galvanised sheet steel, with sound and heat-insulated cladding on the inside. Roof pitch up to 45°.



Flat roof base

Type FDS 450 Ref. no. 1381

With folding mechanism for easy inspection and cleaning.



Corrugated roof base

Type WDS 450 Ref. no. 1563

For EC roof fans and roof cowls on corrugated roof, slope to 25° allowed. Made from corrosion resistant glass reinforced polyester (profile no. 5).



Counterflange

Type FR 450 Ref. no. 1207

Made from galvanised sheet steel, for intake duct connection.



Flanged flexible connector

Type STS 450 Ref. no. 1224

To reduce vibration transmission in intake air ducting. Flanges made of galvanised steel.



Backdraught shutter

Type RVS 450 Ref. no. 2597

Automatic, made from galvanised sheet steel, flaps made of aluminium. To prevent cold air backdraught when the fan is not in use. For vertical air flow bottom-up position.



Motorised backdraught shutter

Type RVM 450 Ref. no. 2581

As RVS, but with spring reversing motor, mounted outside the air flow and for vertical air flow in any direction.



Universal control system

Type EUR EC Ref. no. 1347

For stepless control or adjustment of single and three phase EC-fans with an input control signal of 0–10 V DC.



Speed-potentiometer

Type PU/PA 10 see type table

For direct control or nominal value preset of EC-fans with potentiometer input.



Vertical VDR

■ **Specification**

Vertical discharge centrifugal roof fan.

■ **Casing**

Base plate, casing and other components made of galvanised sheet steel. Base plate supplied with drilled holes in order to connect in-take accessories.

■ **Impeller**

High-performance centrifugal impeller with backward curved blades made of polymer, dynamically balanced together with the motor.

■ **Motor**

Totally enclosed ball bearing mounted external rotor motor (IP 44), with moisture protection. Maintenance-free and interference-free.

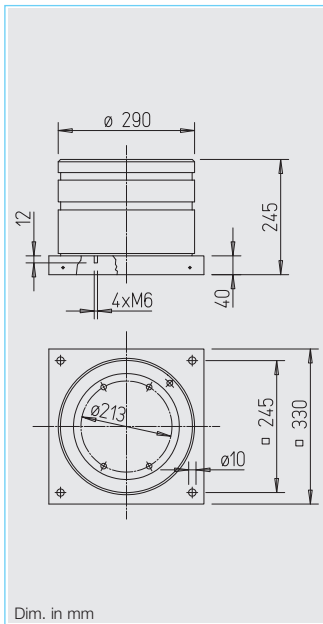
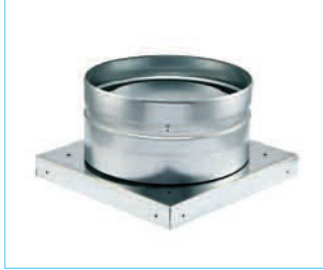
■ **Motor protection**

Through built-in thermal contacts, which are wired in series with the winding and automatically switch off at high motor temperatures and back on again after cooling.

■ **Electrical connection**

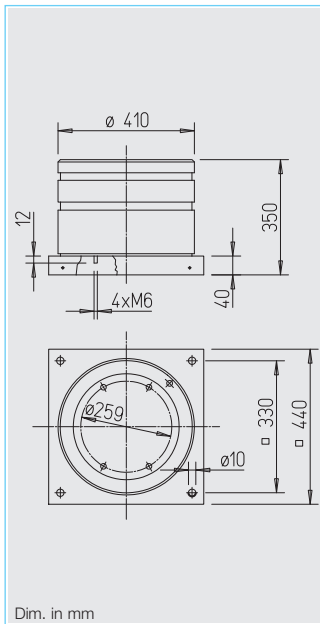
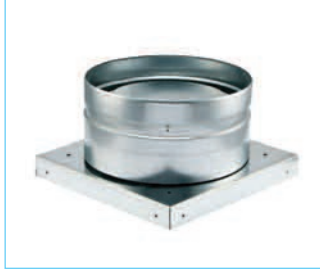
Standard isolator on outside of casing, factory-wired.

VDRW 180



Dim. in mm

VDRW 200



Dim. in mm

■ **Speed control**

All types are steplessly speed controllable in the range from 0 – 100 % by electronic speed controller or 5-step controller.

■ **Sound levels**

The sound pressure in dB(A) at a distance of 4 m is specified on the performance curve. The sum levels and spectrum figures are specified for sound pressure and sound power above the performance curve.

■ **Delivery**

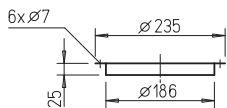
Ready-to-connect, completely pre-assembled in shipping carton.

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Speed controller and switch	525 on

Accessories for Type VDRW 180

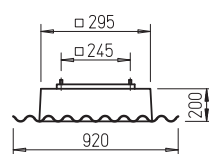
Counterflange FR 180

Ref. no. 1200



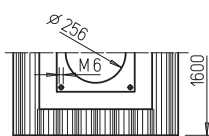
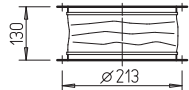
Corrugated roof base, profile 5 WDS 180

Ref. no. 1559



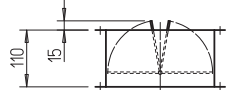
Flanged flexible connector STS 180

Ref. no. 1217



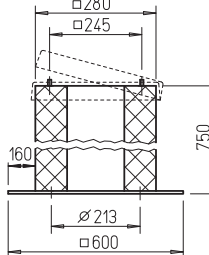
Automatic backdraught shutter DVS 180

Ref. no. 1247



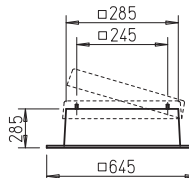
Hinged base attenuator SSD 180

Ref. no. 5289



Hinged flat roof base FDS 180

Ref. no. 1377

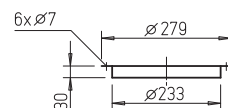


Dim. in mm

Accessories for Type VDRW 200

Counterflange DFR 200

Ref. no. 1201



Flanged flexible connector DSTS 200

Ref. no. 1218

For ex-proof fans

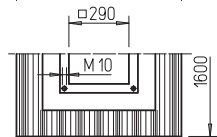
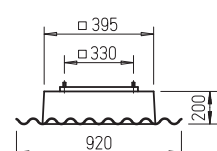
DSTS 200 Ex

Ref. no. 2500



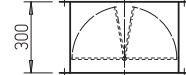
Corrugated roof base, profile 5 WDS 200

Ref. no. 1560



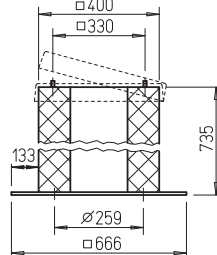
Automatic backdraught shutter DRVS 200

Ref. no. 2591



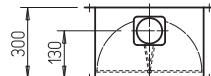
Hinged base attenuator SSD 200

Ref. no. 5290



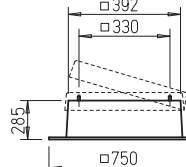
Motorised backdraught shutter DRVM 200

Ref. no. 2575



Hinged flat roof base FDS 200

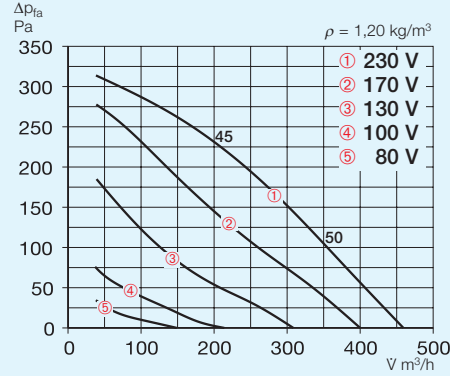
Ref. no. 1378



Dim. in mm

VDRW 180/2 C

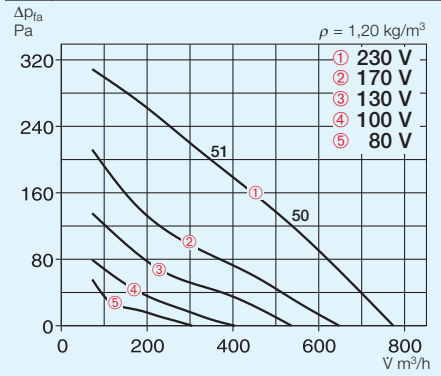
Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 61	39	51	54	47	56	53
L _{PA, 4m} Exhaust		dB(A) 48	23	40	42	39	43	41



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current at full load	Wiring diagram	max. air flow temperature at full load	Weight net	Full motor protection device	5-step speed switch
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	No.	°C	kg	Type Ref. no.	Type Ref. no.
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 44											
VDRW 180/2 C	2794	2480	460	48	55	0.26	826	50	5.5	TSW 0,3 3608	ESU 1/ESA 1 0236/0238

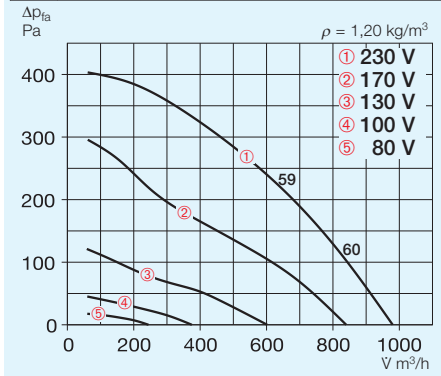
VDRW 200/2 B

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 69	49	53	63	66	58	57
L _{PA, 4m} Exhaust		dB(A) 50	19	31	42	46	45	42



VDRW 200/2 D

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 79	62	63	72	77	58	61
L _{PA, 4m} Exhaust		dB(A) 60	31	42	55	53	53	47



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current at full load	Wiring diagram	max. air flow temperature at full load	Weight net	Full motor protection device	5-step speed switch
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	No.	°C	kg	Type Ref. no.	Type Ref. no.
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 44											
VDRW 200/2 B	2795	2600	770	50	85	0.38	826	40	9.5	TSW 1,5 1495	ESU 1/ESA 1 0236/0238
VDRW 200/2 D	2796	2500	990	60	149	0.57	826	70	10.5	TSW 1,5 1495	ESU 1/ESA 1 0236/0238



Series specification

■ Specification RD

Centrifugal roof fan with horizontal discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Specification VD

Centrifugal roof fan with vertical discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

Specification for all series

■ Casing

Casing made from seawater-resistant aluminium with integrated protection. Motor base plate and base plate with inlet cone made from galvanised steel. Base plate with threaded bolt for connection of intake air accessories (hole pattern according to DIN 24155).

■ Impeller

High performance backward curved centrifugal impeller made of polymer. Dynamically balanced according to DIN ISO 1940-1.

■ Motor

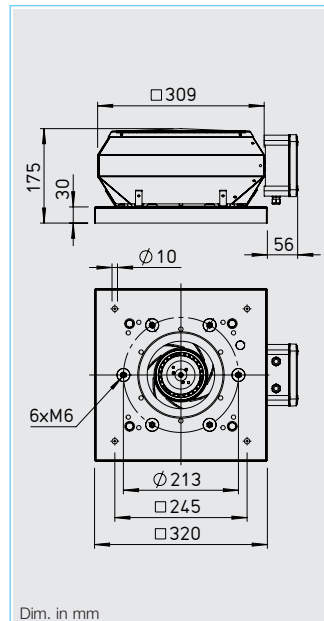
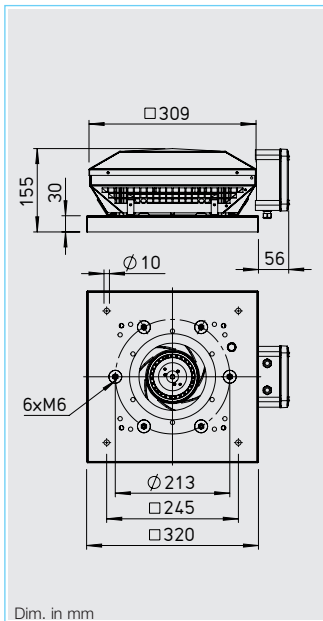
Totally enclosed speed controllable external rotor (IP 44). Ball bearing mounted with moisture protection. Maintenance-free and interference-free.

■ Motor protection

Through built-in thermal contacts, which are wired in series with the winding and automatically switch off at high motor temperatures and back on again after cooling.

■ Electrical connection

To external terminal box IP 65. Isolator available (see accessories).



■ Guard

Standard on the exhaust side according to DIN EN ISO 13857.

■ Speed control

All types are steplessly speed controllable in the range from 0 – 100 % by electronic speed controller or 5-step controller. See type table for assignment.

■ Sound levels

The sum levels and spectrum figures are specified above the performance curve for:
 – Sound level intake
 – Sound level exhaust

The horizontal sound pressure level at 4 m (free field conditions) is also specified in the type table as well as the table below the performance curve.

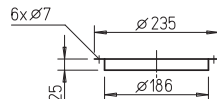
■ Delivery

Ready-to-connect, completely pre-assembled in shipping carton.

Accessories for Type RD / VD

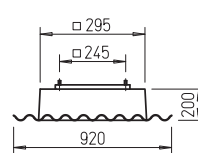
Counterflange FR 180

Ref. no. 1200



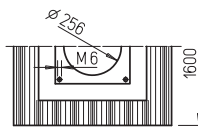
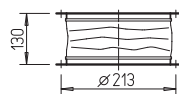
Corrugated roof base, profile 5 WDS 180

Ref. no. 1559



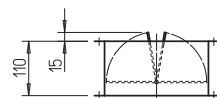
Flanged flexible connector STS 180

Ref. no. 1217



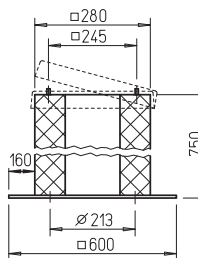
Automatic backdraught shutter DVS 180

Ref. no. 1247



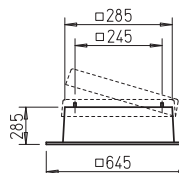
Hinged base attenuator SSD 180

Ref. no. 5289



Hinged flat roof base FDS 180

Ref. no. 1377

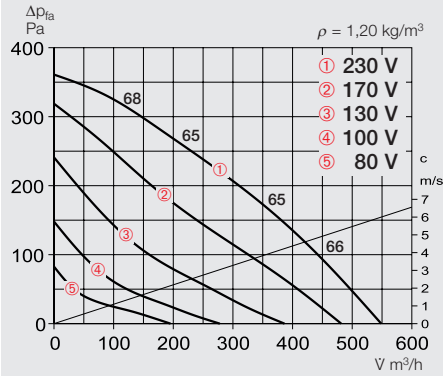


Dim. in mm

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Speed controller and switch	525 on

RDW 180/2

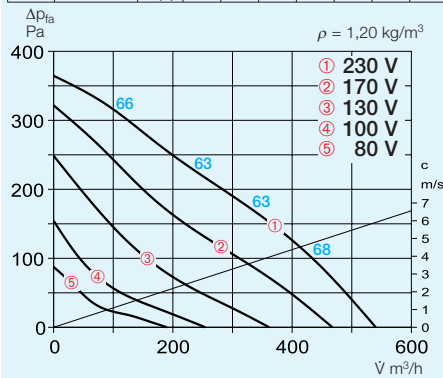
Frequency		Hz	Total	125	250	500	1k	2k	4k
L _{WA}	Intake	dB(A)	61	37	48	53	56	55	54
L _{WA}	Exhaust	dB(A)	65	38	52	58	62	57	54



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow full load	max. air flow temp. control	Weight net	Full motor protection device	5-step speed switch		
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	°C	kg	Type	Ref. no.	Type	Ref. no.
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 44															
RDW 180/2	7122	2330	550	48	66	0.3	0.3	923	60	60	4.5	—	—	TSW 1,5	1495

VDW 180/2

Frequency		Hz	Total	125	250	500	1k	2k	4k
L _{WA}	Intake	dB(A)	60	36	47	52	55	54	53
L _{WA}	Exhaust	dB(A)	63	38	51	56	59	57	52



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow full load	max. air flow temp. control	Weight net	Full motor protection device	5-step speed switch		
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	°C	kg	Type	Ref. no.	Type	Ref. no.
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 44															
VDW 180/2	7120	2330	540	46	66	0.3	0.3	923	60	60	5.0	—	—	TSW 1,5	1495



Series specification

■ Specification RD

Centrifugal roof fan with horizontal discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Specification VD

Centrifugal roof fan with vertical discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

Specification for all series

■ Casing

Casing made from seawater-resistant aluminium with integrated protection. Motor base plate and base plate with inlet cone made from galvanised steel (inlet cone ex-proof version made from aluminium). Base plate with threaded bolt for connection of intake air accessories (hole pattern according to DIN 24155).

■ Impeller

High performance backward curved centrifugal impeller made of galvanised sheet steel (ex-proof version made from aluminium). Dynamically balanced according to DIN ISO 1940-1.

■ Motor

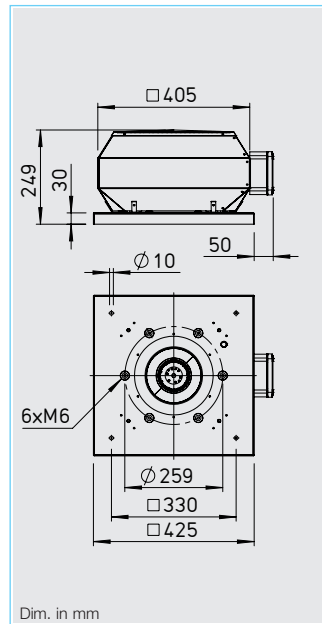
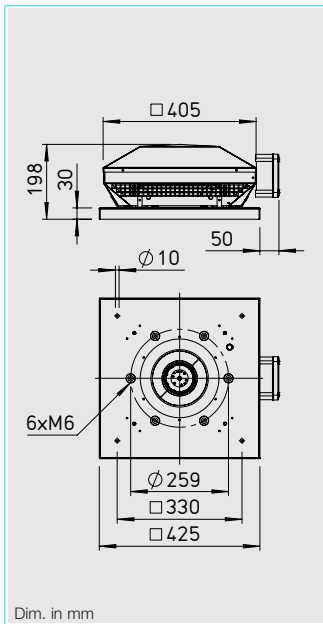
Totally enclosed speed controllable external rotor (IP 44). Ball bearing mounted with moisture protection. Maintenance-free and interference-free.

■ Motor protection

Through built-in thermal contacts, which are wired in series with the winding and automatically switch off at high motor temperatures and back on again after cooling. Ex-proof version with thermal motor protection from built-in PTC thermistor.

■ Electrical connection

To external terminal box IP 65. Isolator available (see accessories).



■ Guard

Standard on the exhaust side according to DIN EN ISO 13857.

■ Speed control

All types are steplessly speed controllable in the range from 0 – 100 % by electronic speed controller or 5-step controller. See type table for assignment.

■ Sound levels

The sum levels and spectrum figures are specified above the performance curve for:
 – Sound level intake
 – Sound level exhaust

The horizontal sound pressure level at 4 m (free field conditions) is also specified in the type table as well as the table below the performance curve.

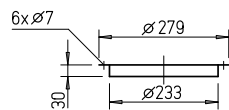
■ Delivery

Ready-to-connect, completely pre-assembled in shipping carton.

Accessories for Type RD / VD

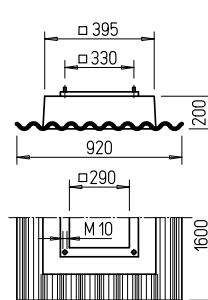
Counterflange DFR 200

Ref. no. 1201



Corrugated roof base, profile 5 WDS 200

Ref. no. 1560



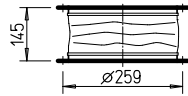
Flanged flexible connector DSTS 200

Ref. no. 1218

For ex-proof fans

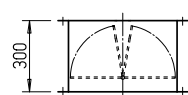
DSTS 200 Ex

Ref. no. 2500



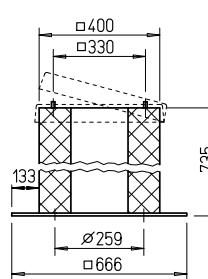
Automatic backdraught shutter DRVS 200

Ref. no. 2591



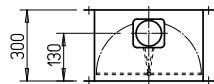
Hinged base attenuator SSD 200

Ref. no. 5290



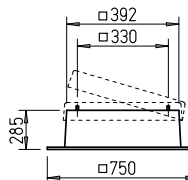
Motorised backdraught shutter DRVM 200

Ref. no. 2575



Hinged flat roof base FDS 200

Ref. no. 1378

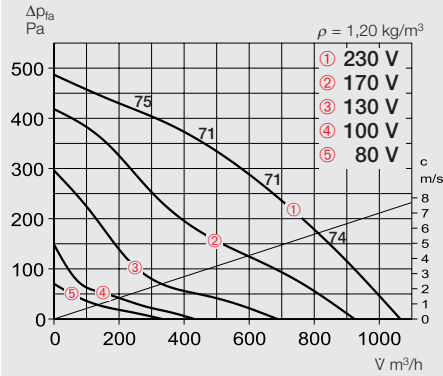


Dim. in mm

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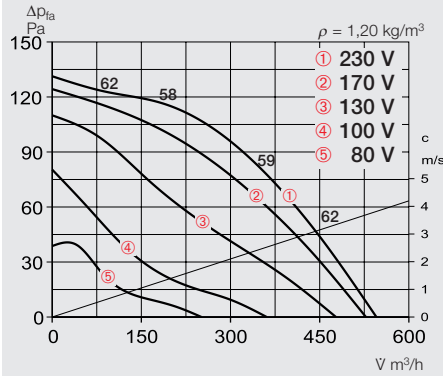
RDW 200/2

Frequency	Hz	Total	125	250	500	1k	2k	4k	
L _{WA} Intake		dB(A)	68	44	57	61	63	60	60
L _{WA} Exhaust		dB(A)	71	45	62	66	65	62	62



RDW 200/4

Frequency	Hz	Total	125	250	500	1k	2k	4k	
L _{WA} Intake		dB(A)	56	32	45	49	51	48	48
L _{WA} Exhaust		dB(A)	59	33	50	54	53	50	50

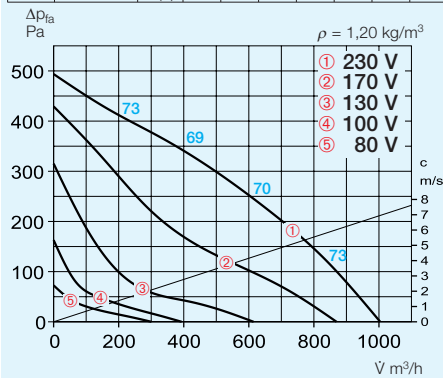


Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	Weight net	Full motor protection device		5-step speed switch	
											Type	Ref. no.	Type	Ref. no.
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	kg				
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 44														
RDW 200/4	7177	1375	545	42	34	0.16	0.16	923	70	7.0	—	—	TSW 1,5	1495
RDW 200/2	7176	2430	1070	54	125	0.56	0.56	923	70	7.5	—	—	TSW 1,5	1495
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3														
RDD 200/4 Ex ¹⁾	7191	1465	770	42	75	0.32	0.32	1129	40	7.0	MSA	1289	TSD 0,8	1500

1) Performance curve on www.HeliosSelect.de

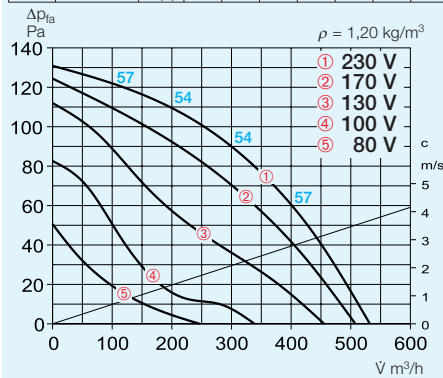
VDW 200/2

Frequency	Hz	Total	125	250	500	1k	2k	4k	
L _{WA} Intake		dB(A)	68	43	58	60	63	61	60
L _{WA} Exhaust		dB(A)	70	46	63	64	63	62	61



VDW 200/4

Frequency	Hz	Total	125	250	500	1k	2k	4k	
L _{WA} Intake		dB(A)	52	35	41	47	46	44	44
L _{WA} Exhaust		dB(A)	54	38	47	49	46	46	45



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	Weight net	Full motor protection device		5-step speed switch	
											Type	Ref. no.	Type	Ref. no.
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	kg				
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 44														
VDW 200/4	7134	1375	535	37	34	0.16	0.16	923	70	7.5	—	—	TSW 1,5	1495
VDW 200/2	7126	2430	1000	53	125	0.56	0.56	923	70	8.0	—	—	TSW 1,5	1495
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3														
VDD 200/4 Ex ¹⁾	7178	1465	750	37	75	0.32	0.32	1129	40	7.5	MSA	1289	TSD 0,8	1500

1) Performance curve on www.HeliosSelect.de



Series specification

■ Specification RD

Centrifugal roof fan with horizontal discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Specification VD

Centrifugal roof fan with vertical discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

Specification for all series

■ Casing

Casing made from seawater-resistant aluminium with integrated protection. Motor base plate and base plate with inlet cone made from galvanised steel (inlet cone ex-proof version made from aluminium). Base plate with threaded bolt for connection of intake air accessories (hole pattern according to DIN 24155).

■ Impeller

High performance backward curved centrifugal impeller made of galvanised sheet steel (ex-proof version made from aluminium). Dynamically balanced according to DIN ISO 1940-1.

■ Motor

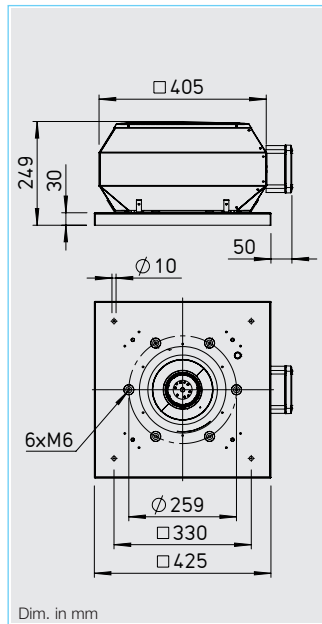
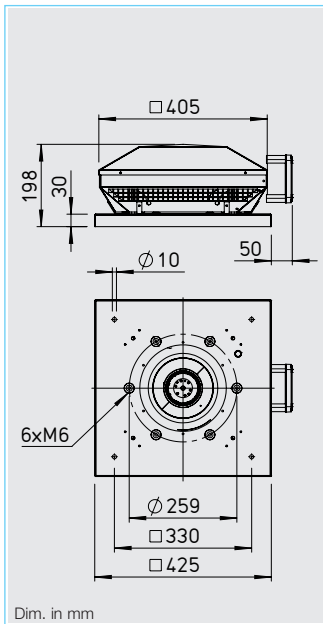
Totally enclosed speed controllable external rotor (IP 44). Ball bearing mounted with moisture protection. Maintenance-free and interference-free.

■ Motor protection

Through built-in thermal contacts, which are wired in series with the winding and automatically switch off at high motor temperatures and back on again after cooling. Ex-proof version with thermal motor protection from built-in PTC thermistor.

■ Electrical connection

To external terminal box IP 65. Isolator available (see accessories).



■ Guard

Standard on the exhaust side according to DIN EN ISO 13857.

■ Speed control

All types are steplessly speed controllable in the range from 0 – 100 % by electronic speed controller or 5-step controller. See type table for assignment.

■ Sound levels

The sum levels and spectrum figures are specified above the performance curve for:
 – Sound level intake
 – Sound level exhaust

The horizontal sound pressure level at 4 m (free field conditions) is also specified in the type table as well as the table below the performance curve.

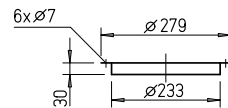
■ Delivery

Ready-to-connect, completely pre-assembled in shipping carton.

Accessories for Type RD / VD

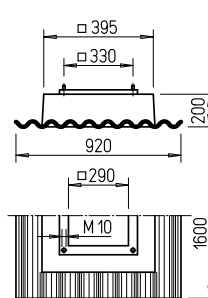
Counterflange FR 225

Ref. no. 1201



Corrugated roof base, profile 5 WDS 225

Ref. no. 1560

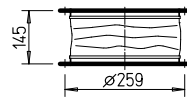


Flanged flexible connector STS 225

Ref. no. 1218

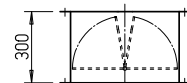
For ex-proof fans STS 225 Ex

Ref. no. 2500



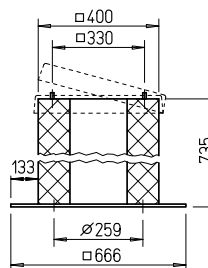
Automatic backdraught shutter RVS 225

Ref. no. 2591



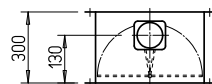
Hinged base attenuator SSD 225

Ref. no. 5290



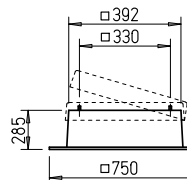
Motorised backdraught shutter RVM 225

Ref. no. 2575



Hinged flat roof base FDS 225

Ref. no. 1378

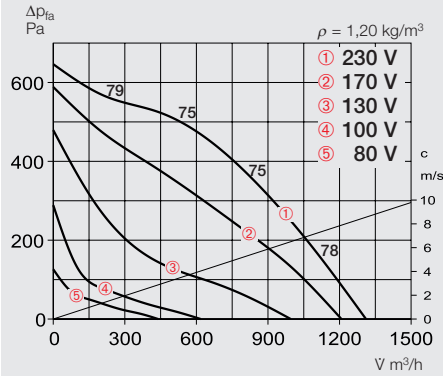


Dim. in mm

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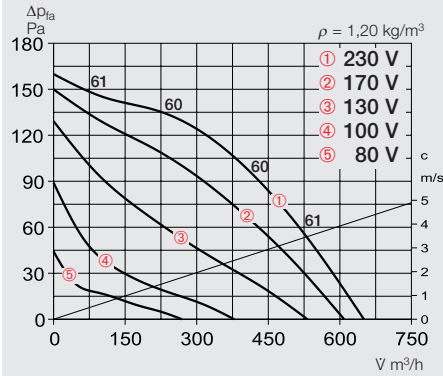
RDW 225/2

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 72	46	62	65	67	64	64
L _{WA} Exhaust		dB(A) 75	50	65	69	70	67	66



RDW 225/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 56	39	45	50	51	48	48
L _{WA} Exhaust		dB(A) 60	40	51	57	53	49	49

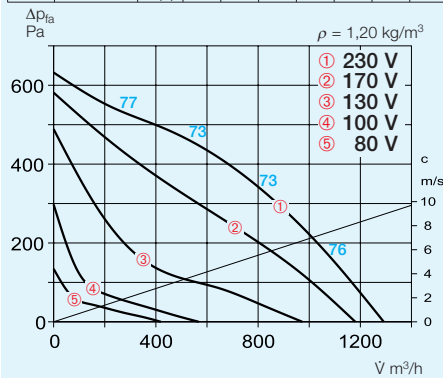


Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	Weight net	Full motor protection device		5-step speed switch		
											Type	Ref. no.	Type	Ref. no.	
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	°C	kg	Type	Ref. no.	Type	Ref. no.
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 44															
RDW 225/4	7235	1340	650	43	43	0.2	0.2	923	70	70	6.5	—	—	TSW 1,5	1495
RDW 225/2	7234	2635	1330	58	208	0.9	1	923	70	70	7.5	—	—	TSW 1,5	1495
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3															
RDD 225/4 Ex ¹⁾	7239	1450	1050	43	80	0.35	0.35	1129	40	40	6.5	MSA	1289	TSD 0,8	1500

1) Performance curve on www.HeliosSelect.de

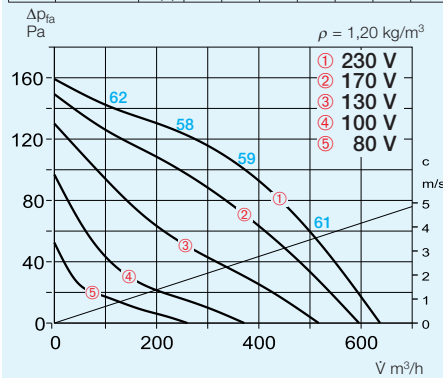
VDW 225/2

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 71	47	61	64	66	63	63
L _{WA} Exhaust		dB(A) 73	50	64	66	66	67	65



VDW 225/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 57	33	47	50	52	49	49
L _{WA} Exhaust		dB(A) 59	36	50	52	52	53	51



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	Weight net	Full motor protection device		5-step speed switch		
											Type	Ref. no.	Type	Ref. no.	
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	°C	kg	Type	Ref. no.	Type	Ref. no.
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 44															
VDW 225/4	7221	1340	640	42	43	0.2	0.2	923	70	70	8.0	—	—	TSW 1,5	1495
VDW 225/2	7196	2635	1295	56	208	0.9	1	923	70	70	9.0	—	—	TSW 1,5	1495
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3															
VDD 225/4 Ex ¹⁾	7237	1450	1025	42	80	0.35	0.35	1129	40	40	8.0	MSA	1289	TSD 0,8	1500

1) Performance curve on www.HeliosSelect.de



Series specification

■ Specification RD

Centrifugal roof fan with horizontal discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Specification VD

Centrifugal roof fan with vertical discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

Specification for all series

■ Casing

Casing made from seawater-resistant aluminium with integrated protection. Motor base plate and base plate with inlet cone made from galvanised steel (inlet cone ex-proof version made from aluminium). Base plate with threaded bolt for connection of intake air accessories (hole pattern according to DIN 24155).

■ Impeller

High performance backward curved centrifugal impeller made of galvanised sheet steel (ex-proof version made from aluminium). Dynamically balanced according to DIN ISO 1940-1.

■ Motor

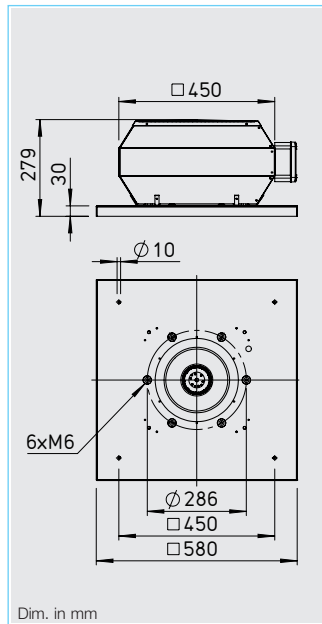
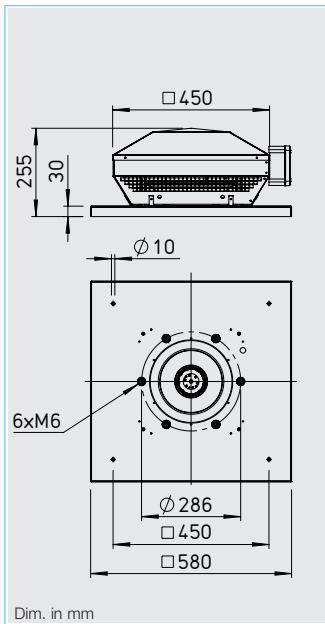
Totally enclosed speed controllable external rotor (IP 44). Ball bearing mounted with moisture protection. Maintenance-free and interference-free.

■ Motor protection

Through built-in thermal contacts, which are wired in series with the winding and automatically switch off at high motor temperatures and back on again after cooling. Ex-proof version with thermal motor protection from built-in PTC thermistor.

■ Electrical connection

To external terminal box IP 65. Isolator available (see accessories).



■ Guard

Standard on the exhaust side according to DIN EN ISO 13857.

■ Speed control

All types are steplessly speed controllable in the range from 0 – 100 % by electronic speed controller or 5-step controller. See type table for assignment.

■ Sound levels

The sum levels and spectrum figures are specified above the performance curve for:
 – Sound level intake
 – Sound level exhaust

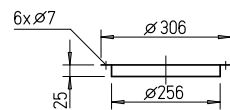
The horizontal sound pressure level at 4 m (free field conditions) is also specified in the type table as well as the table below the performance curve.

■ Delivery

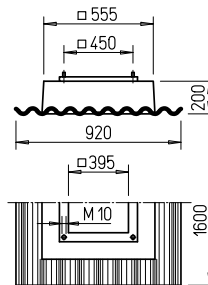
Ready-to-connect, completely pre-assembled in shipping carton.

Accessories for Type RD / VD

Counterflange FR 250 Ref. no. 1203

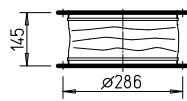


Corrugated roof base, profile 5 WDS 250 Ref. no. 1561

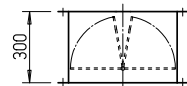


Flanged flexible connector STS 250 Ref. no. 1220

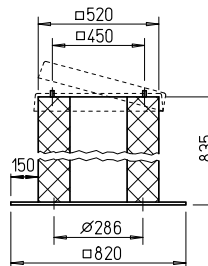
For ex-proof fans
STS 250 Ex Ref. no. 2501



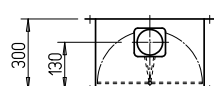
Automatic backdraught shutter RVS 250 Ref. no. 2592



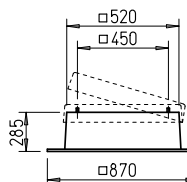
Hinged base attenuator SSD 250 Ref. no. 5292



Motorised backdraught shutter RVM 250 Ref. no. 2576



Hinged flat roof base FDS 250 Ref. no. 1379

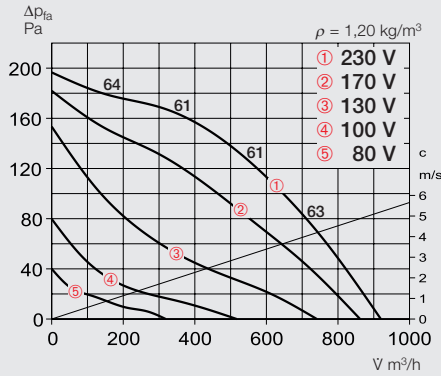


Dim. in mm

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RDW 250/4

Frequency	Hz	Total	125	250	500	1k	2k	4k	
L _{WA} Intake		dB(A)	58	46	48	52	52	50	50
L _{WA} Exhaust		dB(A)	61	50	52	55	54	54	52

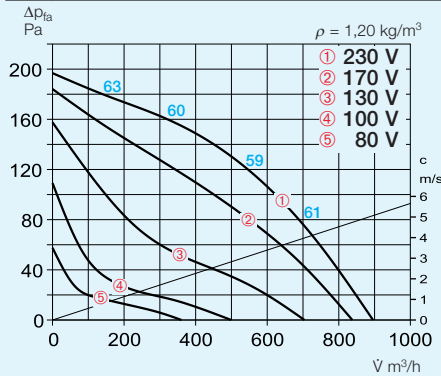


Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	max. air flow temp. control	Weight net	Full motor protection device	5-step speed switch		
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	°C	kg	Type	Ref. no.	Type	Ref. no.
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 44															
RDW 250/4	7264	1340	920	44	63	0.28	0.28	923	70	70	11.0	—	—	TSW 1,5	1495
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3															
RDD 250/4 Ex ¹⁾	7273	1390	1480	44	121	0.36	0.36	1129	40	40	11.0	MSA	1289	TSD 0,8	1500

1) Performance curve on www.HeliosSelect.de

VDW 250/4

Frequency	Hz	Total	125	250	500	1k	2k	4k	
L _{WA} Intake		dB(A)	58	40	49	51	52	51	51
L _{WA} Exhaust		dB(A)	60	47	52	54	53	52	52



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	max. air flow temp. control	Weight net	Full motor protection device	5-step speed switch		
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	°C	kg	Type	Ref. no.	Type	Ref. no.
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 44															
VDW 250/4	7244	1340	900	43	63	0.28	0.28	923	70	70	11.5	—	—	TSW 1,5	1495
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3															
VDD 250/4 Ex ¹⁾	7265	1390	1440	43	121	0.36	0.36	1129	40	40	11.5	MSA	1289	TSD 0,8	1500

1) Performance curve on www.HeliosSelect.de

Series specification

■ Specification RD

Centrifugal roof fan with horizontal discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Specification VD

Centrifugal roof fan with vertical discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Special feature VD T120

Designed for moving process air up to +120 °C. Encapsulated motor located outside of air flow.

Specification for all series

■ Casing

Casing made from seawater-resistant aluminium with integrated protection. Motor base plate and base plate with inlet cone made from galvanised steel (inlet cone ex-proof version made from aluminium). Base plate with threaded bolt for connection of intake air accessories (hole pattern according to DIN 24155).

■ Impeller

High performance backward curved centrifugal impeller made of polymer (T120 and ex-proof version made from aluminium). Dynamically balanced according to DIN ISO 1940-1.

■ Motor

Totally enclosed speed controllable external rotor motor IP 54 (Ex-proof version in IP 44). Flange motor with self-ventilation (T120 version) in IP 54. Ball bearing mounted with moisture protection. Maintenance-free and interference-free.

■ Motor protection

Through built-in thermal contacts or built-in PTC thermistor, which must be connected to a full motor protection device. See type table for assignment.

■ Electrical connection

Without dismantling the casing, to external isolator (ex-proof version to terminal box) protected to IP 65.

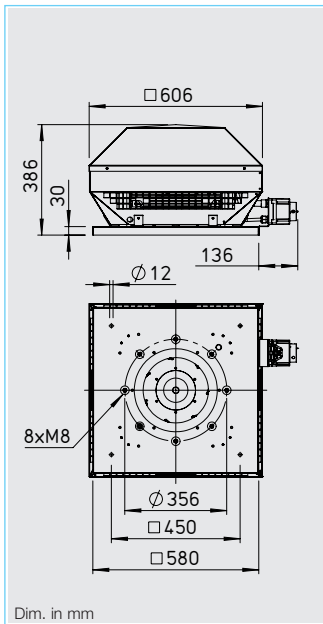
■ Guard

Standard on the exhaust side according to DIN EN ISO 13857.

■ Speed control

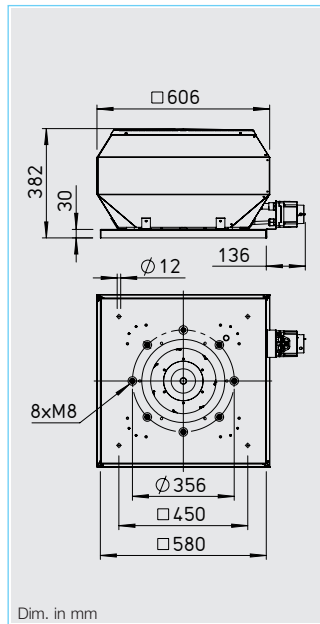
All 1~ types are steplessly speed controllable in the range from 0 – 100 % through electronic speed switch or five-step controller. All 3~ types are steplessly speed controllable in the range from 0 – 100 % with a frequency inverter with integrated all-pole Sine filter (except ex-proof version) or

Horizontal discharge RD



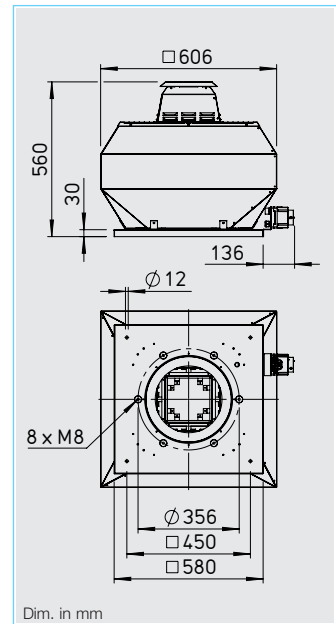
Dim. in mm

Vertical discharge VD



Dim. in mm

VD T120

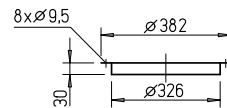


Dim. in mm

Accessories for Type RD / VD*

Counterflange FR 315

Ref. no. 1204

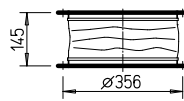


Flanged flexible connector STS 315

Ref. no. 1221

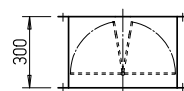
For ex-proof fans

STS 315 Ex Ref. no. 2503



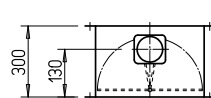
Automatic backdraught shutter RVS 315

Ref. no. 2594



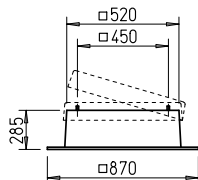
Motorised backdraught shutter RVM 315

Ref. no. 2578



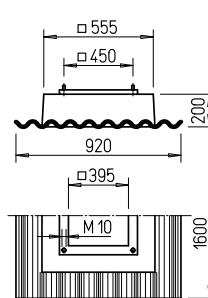
Hinged flat roof base FDS 315

Ref. no. 1379



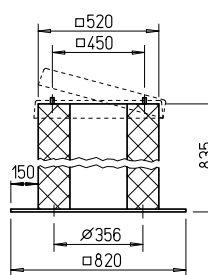
Corrugated roof base, profile 5 WDS 315

Ref. no. 1561



Hinged base attenuator SSD 315

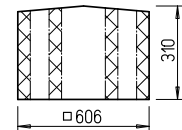
Ref. no. 5292



Roof fan attenuator HSDV 315

Ref. no. 7476

only for type VD



Dim. in mm

five-step controllers. See table for assignment.

■ Sound levels

The sum levels and spectrum figures are specified above the performance curve for:
– Sound level intake
– Sound level exhaust

The horizontal sound pressure level at 4 m (free field conditions) is also specified in the type table as well as the table below the performance curve.

■ Delivery

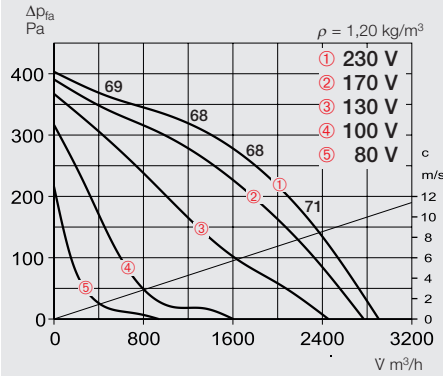
Ready-to-connect, completely pre-assembled in shipping carton.

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Speed controller and switch	525 on

* Accessory VD T120 see installation accessories p. 485 Other accessories upon request.

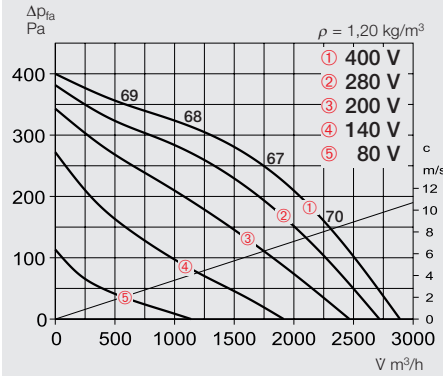
RDW 315/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 66	54	58	60	58	59	58
L _{WA} Exhaust		dB(A) 68	55	62	63	62	58	50



RDD 315/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 66	53	57	59	57	58	57
L _{WA} Exhaust		dB(A) 68	55	61	62	61	57	49

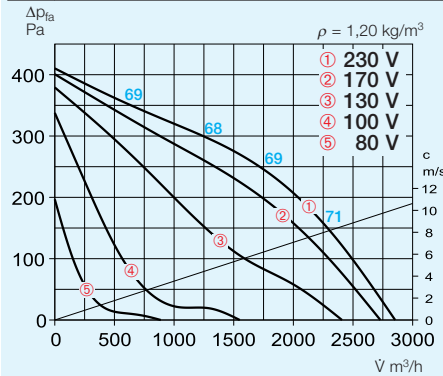


Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	Weight net	Full motor protection device		5-step speed switch		
											Type	Ref. no.	Type	Ref. no.	
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	°C	kg	Type	Ref. no.	Type	Ref. no.
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 54															
RDW 315/4	7287	1385	2900	51	300	1.5	2.0	1128	60	50	20.5	MW	1579	MWS 3 ²⁾	1948
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54															
RDD 315/4	7288	1385	2890	51	290	0.67	0.67	1129	65	65	19.5	MD	5849	RDS 1 ²⁾	1314
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3															
RDD 315/4 Ex ¹⁾	7303	1380	2980	51	320	0.74	0.74	1129	40	40	19.5	MSA	1289	TSD 1,5	1501

1) Performance curve on www.HeliosSelect.de 2) includes full motor protection device

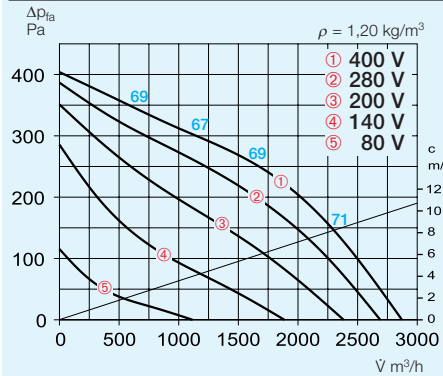
VDW 315/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 66	53	57	59	57	58	57
L _{WA} Exhaust		dB(A) 69	58	61	62	63	58	53



VDD 315/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 65	53	57	59	57	58	57
L _{WA} Exhaust		dB(A) 68	58	61	62	63	58	52



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	Weight net	Full motor protection device		5-step speed switch		
											Type	Ref. no.	Type	Ref. no.	
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	°C	kg	Type	Ref. no.	Type	Ref. no.
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 54															
VDW 315/4	7279	1385	2860	52	300	1.5	2.0	1128	60	50	21.0	MW	1579	MWS 3 ²⁾	1948
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54															
VDD 315/4	7282	1385	2880	51	290	0.67	0.67	1129	65	65	20.0	MD	5849	RDS 1 ²⁾	1314
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3															
VDD 315/4 Ex ¹⁾	7293	1380	2930	52	320	0.74	0.74	1129	40	40	20.0	MSA	1289	TSD 1,5	1501
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54															
VDD 315/4 T120 ¹⁾	7315	1445	2855	52	350	0.9	1.1	1129	120	100	25.0	MD	5849	RDS 2 ²⁾	1315

1) Performance curve on www.HeliosSelect.de 2) includes full motor protection device

Series specification

■ Specification RD

Centrifugal roof fan with horizontal discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Specification VD

Centrifugal roof fan with vertical discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Special feature VD T120

Designed for moving process air up to +120 °C. Encapsulated motor located outside of air flow.

Specification for all series

■ Casing

Casing made from seawater-resistant aluminium with integrated protection. Motor base plate and base plate with inlet cone made from galvanised steel (inlet cone ex-proof version made from aluminium). Base plate with threaded bolt for connection of intake air accessories (hole pattern according to DIN 24155).

■ Impeller

High performance backward curved centrifugal impeller made of polymer (T120 and ex-proof version made from aluminium). Dynamically balanced according to DIN ISO 1940-1.

■ Motor

Totally enclosed speed controllable external rotor motor IP 54 (Ex-proof version in IP 44). Flange motor with self-ventilation (T120 version) in IP 54. Ball bearing mounted with moisture protection. Maintenance-free and interference-free.

■ Motor protection

Through built-in thermal contacts or built-in PTC thermistor, which must be connected to a full motor protection device. See type table for assignment.

■ Electrical connection

Without dismantling the casing, to external isolator (ex-proof version to terminal box) protected to IP 65.

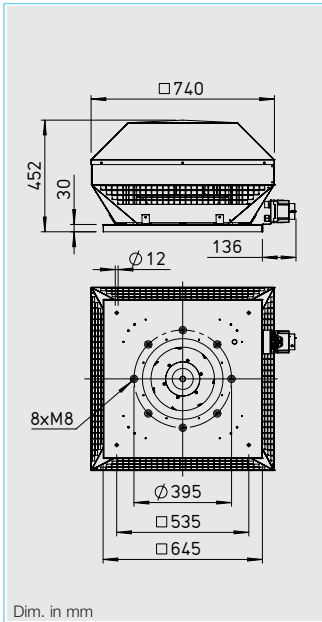
■ Guard

Standard on the exhaust side according to DIN EN ISO 13857.

■ Speed control

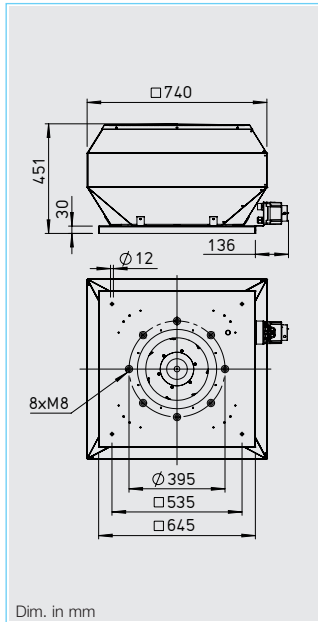
All 1~ types are steplessly speed controllable in the range from 0 – 100 % through electronic speed switch or five-step controller. All 3~ types are steplessly speed controllable in the range from 0 – 100 % with a frequency inverter with integrated all-pole Sine filter (except ex-proof version) or

Horizontal discharge RD



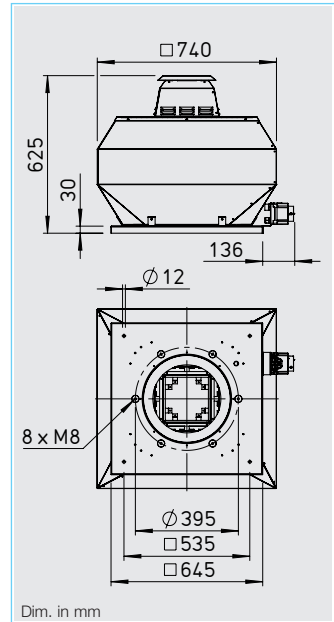
Dim. in mm

Vertical discharge VD



Dim. in mm

VD T120

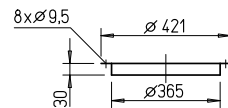


Dim. in mm

Accessories for Type RD / VD*

Counterflange FR 355

Ref. no. 1205



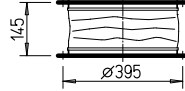
Flanged flexible connector STS 355

Ref. no. 1222

For ex-proof fans

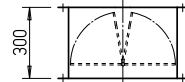
STS 355 Ex

Ref. no. 2504



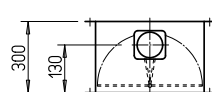
Automatic backdraught shutter RVS 355

Ref. no. 2595



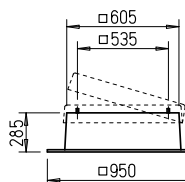
Motorised backdraught shutter RVM 355

Ref. no. 2579



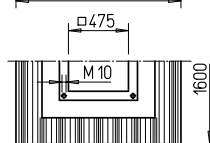
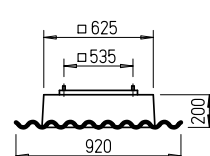
Hinged flat roof base FDS 355

Ref. no. 1380



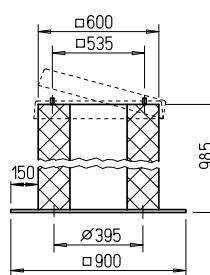
Corrugated roof base, profile 5 WDS 355

Ref. no. 1562



Hinged base attenuator SSD 355

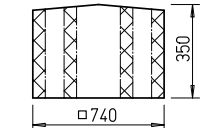
Ref. no. 5024



Roof fan attenuator HSDV 355

Ref. no. 7480

only for type VD



Dim. in mm

five-step controllers. See table for assignment.

■ Sound levels

The sum levels and spectrum figures are specified above the performance curve for:
– Sound level intake
– Sound level exhaust

The horizontal sound pressure level at 4 m (free field conditions) is also specified in the type table as well as the table below the performance curve.

■ Delivery

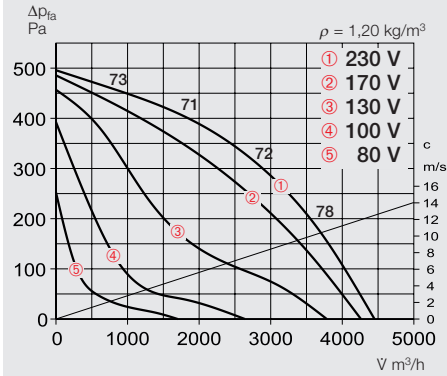
Ready-to-connect, completely pre-assembled in shipping carton.

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* Accessory VD T120 see installation accessories p. 485 Other accessories upon request.

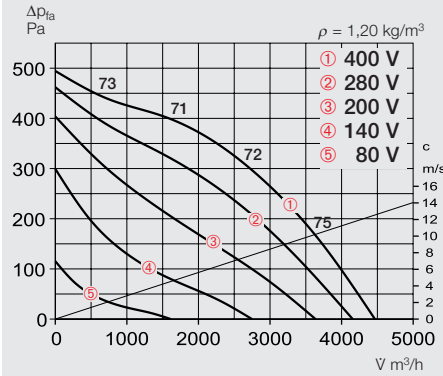
RDW 355/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 66	56	61	60	58	56	53
L _{WA} Exhaust		dB(A) 72	63	66	66	66	62	53



RDD 355/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 66	56	61	60	58	56	53
L _{WA} Exhaust		dB(A) 72	63	66	66	66	62	53

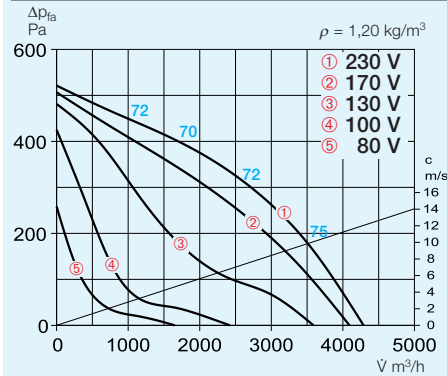


Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	Weight net	Full motor protection device	5-step speed switch
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	kg	Type Ref. no.	Type Ref. no.
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 54												
RDW 355/4	7323	1400	4480	55	520	2.55	3.4	1128	70	55	MW 1579	MWS 5 ²⁾ 1949
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54												
RDD 355/4	7326	1350	4470	55	460	0.9	3.5	1129	60	60	MD 5849	RDS 7 ²⁾ 1578
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3												
RDD 355/4 Ex ¹⁾	7329	1360	3960	55	650	1.5	1.5	1129	40	40	MSA 1289	TSD 3 1502

1) Performance curve on www.HeliosSelect.de 2) includes full motor protection device

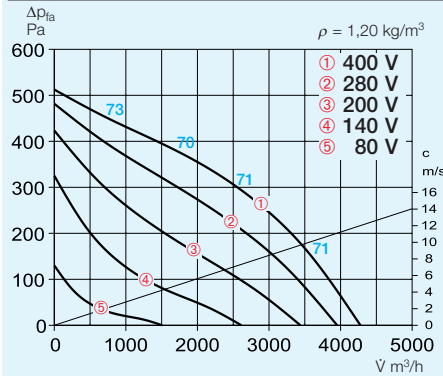
VDW 355/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 66	56	61	60	58	56	53
L _{WA} Exhaust		dB(A) 71	61	65	65	65	62	53



VDD 355/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 66	56	61	60	58	56	53
L _{WA} Exhaust		dB(A) 71	61	64	64	64	60	52



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	Weight net	Full motor protection device	5-step speed switch
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	kg	Type Ref. no.	Type Ref. no.
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 54												
VDW 355/4	7317	1400	4300	54	520	2.55	3.4	1128	70	55	MW 1579	MWS 5 ²⁾ 1949
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54												
VDD 355/4	7318	1350	4290	54	460	0.9	3.5	1129	60	60	MD 5849	RDS 7 ²⁾ 1578
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3												
VDD 355/4 Ex ¹⁾	7327	1360	3880	54	650	1.5	1.5	1129	40	40	MSA 1289	TSD 3 1502
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54												
VDD 355/4 T120 ¹⁾	7336	1420	4315	54	540	1.7	1.8	1129	120	100	MD 5849	RDS 4 ²⁾ 1316

1) Performance curve on www.HeliosSelect.de 2) includes full motor protection device

Series specification

■ Specification RD

Centrifugal roof fan with horizontal discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Specification VD

Centrifugal roof fan with vertical discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Special feature VD T120

Designed for moving process air up to +120 °C. Encapsulated motor located outside of air flow.

Specification for all series

■ Casing

Casing made from seawater-resistant aluminium with integrated protection. Motor base plate and base plate with inlet cone made from galvanised steel (inlet cone ex-proof version made from aluminium). Base plate with threaded bolt for connection of intake air accessories (hole pattern according to DIN 24155).

■ Impeller

High performance backward curved centrifugal impeller made of polymer (T120 and ex-proof version made from aluminium). Dynamically balanced according to DIN ISO 1940-1.

■ Motor

Totally enclosed speed controllable external rotor motor IP 54 (Ex-proof version in IP 44). Flange motor with self-ventilation (T120 version) in IP 54. Ball bearing mounted with moisture protection. Maintenance-free and interference-free.

■ Motor protection

Through built-in thermal contacts or built-in PTC thermistor, which must be connected to a full motor protection device. See type table for assignment.

■ Electrical connection

Without dismantling the casing, to external isolator (ex-proof version to terminal box) protected to IP 65.

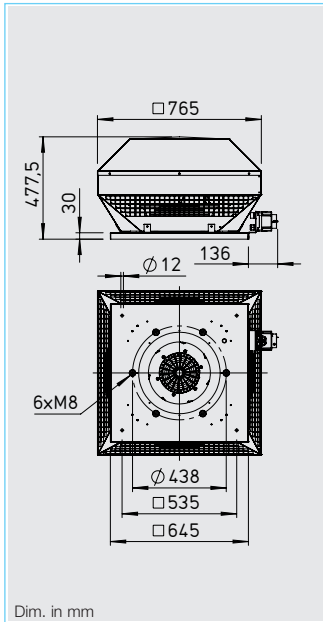
■ Guard

Standard on the exhaust side according to DIN EN ISO 13857.

■ Speed control

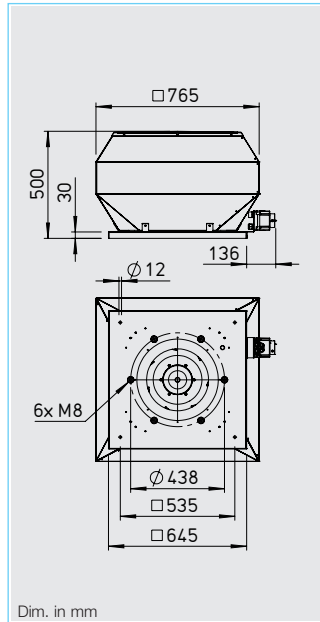
All 1~ types are steplessly speed controllable in the range from 0 – 100 % through electronic speed switch or five-step controller. All 3~ types are steplessly speed controllable in the range from 0 – 100 % with a frequency inverter with integrated all-pole Sine filter (except ex-proof version) or

Horizontal discharge RD



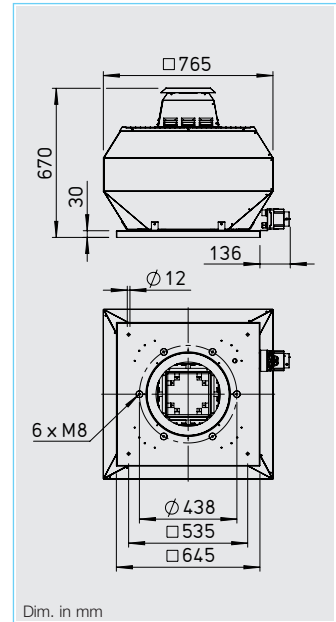
Dim. in mm

Vertical discharge VD



Dim. in mm

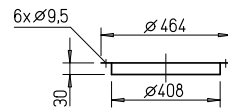
VD T120



Dim. in mm

Accessories for Type RD / VD*

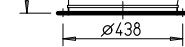
Counterflange FR 400 Ref. no. 1206



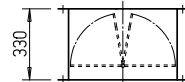
Flanged flexible connector STS 400 Ref. no. 1223

For ex-proof fans

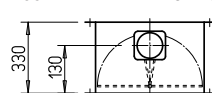
STS 400 Ex Ref. no. 2505



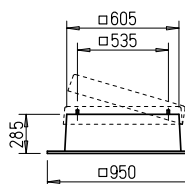
Automatic backdraught shutter RVS 400 Ref. no. 2596



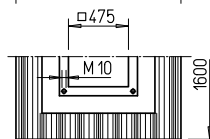
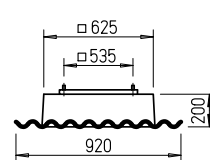
Motorised backdraught shutter RVM 400 Ref. no. 2580



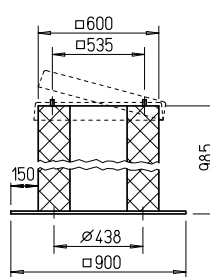
Hinged flat roof base FDS 400 Ref. no. 1380



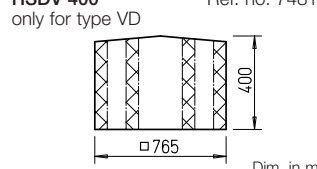
Corrugated roof base, profile 5 WDS 400 Ref. no. 1562



Hinged base attenuator SSD 400 Ref. no. 5291



Roof fan attenuator HSDV 400 Ref. no. 7481



Dim. in mm

five-step controllers. See table for assignment.

■ Sound levels

The sum levels and spectrum figures are specified above the performance curve for:
– Sound level intake
– Sound level exhaust

The horizontal sound pressure level at 4 m (free field conditions) is also specified in the type table as well as the table below the performance curve.

■ Delivery

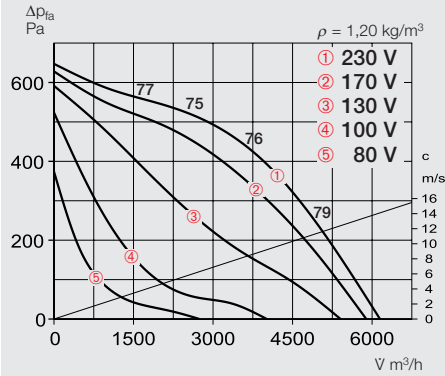
Ready-to-connect, completely pre-assembled in shipping carton.

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* Accessory VD T120 see installation accessories p. 485 Other accessories upon request.

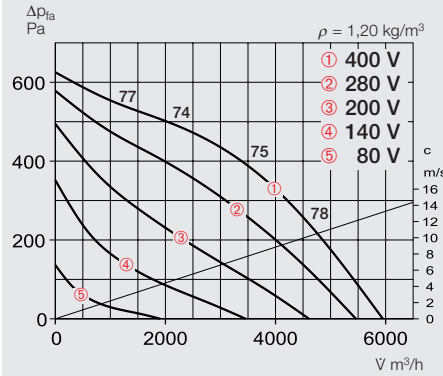
RDW 400/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 71	61	65	66	63	62	56
L _{WA} Exhaust		dB(A) 76	67	70	70	70	66	59



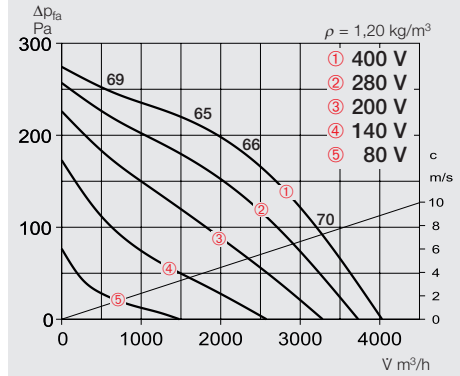
RDD 400/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 70	60	64	65	62	61	55
L _{WA} Exhaust		dB(A) 75	66	69	69	69	65	58



RDD 400/6

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 61	51	55	56	53	52	46
L _{WA} Exhaust		dB(A) 66	57	60	60	60	56	49

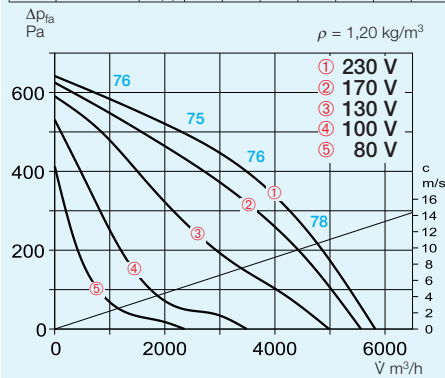


Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	Weight net	Full motor protection device	5-step speed switch
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	kg	Type Ref. no.	Type Ref. no.
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 54												
RDW 400/4	7350	1405	6150	59	875	4.3	6.0	1128	60	40	MW 1579	MSW 7,5 ²⁾ 1950
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54												
RDD 400/6	7352	905	4030	49	260	0.6	0.6	1129	60	60	MD 5849	RDS 1 ²⁾ 1314
RDD 400/4	7351	1375	5970	58	765	1.55	1.6	1129	60	55	MD 5849	RDS 2 ²⁾ 1315
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3												
RDD 400/6 Ex ¹⁾	7363	935	4325	49	300	0.77	0.83	1129	40	40	MSA 1289	TSD 1,5 1501
RDD 400/4 Ex ¹⁾	7358	1375	5700	58	1000	2.1	2.2	1129	40	40	MSA 1289	TSD 1,5 1501

1) Performance curve on www.HeliosSelect.de 2) includes full motor protection device

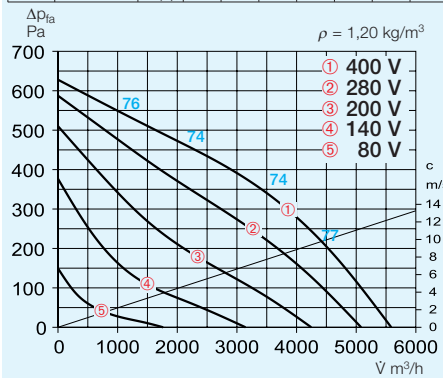
VDW 400/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 71	61	65	66	63	62	56
L _{WA} Exhaust		dB(A) 76	63	71	70	70	66	60



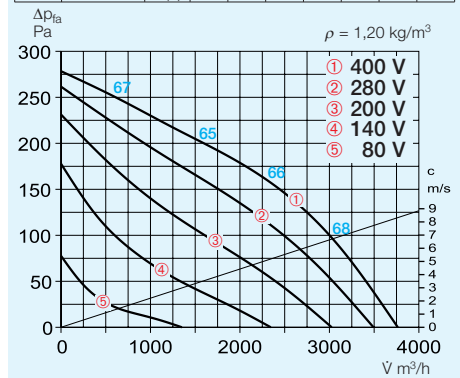
VDD 400/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 69	59	63	64	61	60	54
L _{WA} Exhaust		dB(A) 74	61	69	68	68	64	58



VDD 400/6

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 61	51	55	56	53	52	46
L _{WA} Exhaust		dB(A) 66	53	61	60	60	56	50



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	Weight net	Full motor protection device	5-step speed switch
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	kg	Type Ref. no.	Type Ref. no.
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 54												
VDW 400/4	7338	1405	5830	59	875	4.3	6.0	1128	60	40	MW 1579	MWS 7,5 ²⁾ 1950
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54												
VDD 400/6	7343	905	3780	49	260	0.6	0.6	1129	60	60	MD 5849	RDS 1 ²⁾ 1314
VDD 400/4	7342	1375	5590	57	765	1.55	1.6	1129	60	55	MD 5849	RDS 2 ²⁾ 1315
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3												
VDD 400/6 Ex ¹⁾	7359	935	3865	49	300	0.77	0.83	1129	40	40	MSA 1289	TSD 1,5 1501
VDD 400/4 Ex ¹⁾	7353	1375	5350	57	1000	2.1	2.2	1129	40	40	MSA 1289	TSD 3 1502
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54												
VDD 400/6 T120 ¹⁾	7366	930	4170	49	360	1.0	1.0	1129	120	100	MD 5849	RDS 2 ²⁾ 1315
VDD 400/4 T120 ¹⁾	7370	1350	6050	57	880	1.8	1.8	1129	120	100	MD 5849	RDS 4 ²⁾ 1316

1) Performance curve on www.HeliosSelect.de 2) includes full motor protection device

Series specification

■ Specification RD

Centrifugal roof fan with horizontal discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Specification VD

Centrifugal roof fan with vertical discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Special feature VD T120

Designed for moving process air up to +120 °C. Encapsulated motor located outside of air flow.

Specification for all series

■ Casing

Casing made from seawater-resistant aluminium with integrated protection. Motor base plate and base plate with inlet cone made from galvanised steel (inlet cone ex-proof version made from aluminium). Base plate with threaded bolt for connection of intake air accessories (hole pattern according to DIN 24155).

■ Impeller

High performance backward curved centrifugal impeller made of polymer (T120 and ex-proof version made from aluminium). Dynamically balanced according to DIN ISO 1940-1.

■ Motor

Totally enclosed speed controllable external rotor motor IP 54 (Ex-proof version in IP 44). Flange motor with self-ventilation (T120 version) in IP 54. Ball bearing mounted with moisture protection. Maintenance-free and interference-free.

■ Motor protection

Through built-in thermal contacts or built-in PTC thermistor, which must be connected to a full motor protection device. See type table for assignment.

■ Electrical connection

Without dismantling the casing, to external isolator (ex-proof version to terminal box) protected to IP 65.

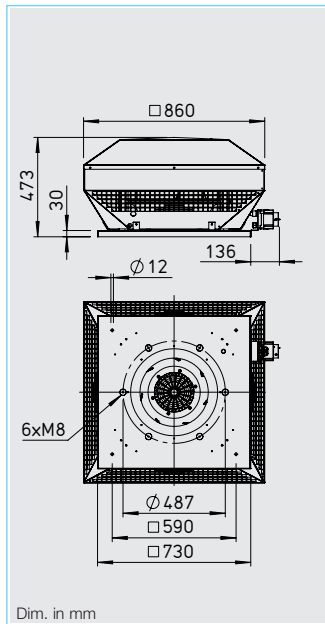
■ Guard

Standard on the exhaust side according to DIN EN ISO 13857.

■ Speed control

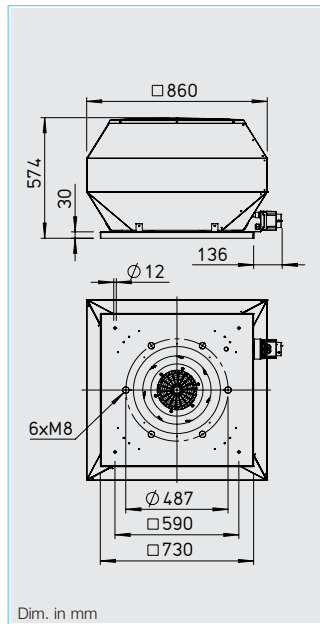
All 1~ types are steplessly speed controllable in the range from 0 – 100 % through electronic speed switch or five-step controller. All 3~ types are steplessly speed controllable in the range from 0 – 100 % with a frequency inverter with integrated all-pole Sine filter (except ex-proof version) or

Horizontal discharge RD



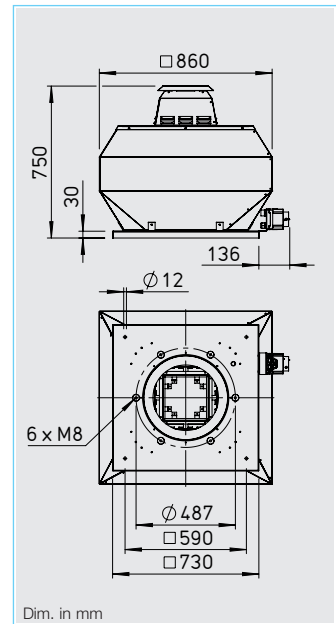
Dim. in mm

Vertical discharge VD



Dim. in mm

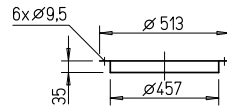
VD T120



Dim. in mm

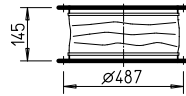
Accessories for Type RD / VD*

Counterflange
FR 450 Ref. no. 1207

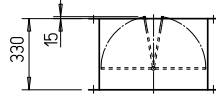


Flanged flexible connector
STS 450 Ref. no. 1224

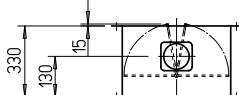
For ex-proof fans
STS 450 Ex Ref. no. 2506



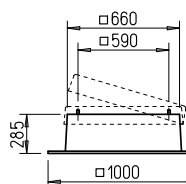
Automatic backdraught shutter
RVS 450 Ref. no. 2597



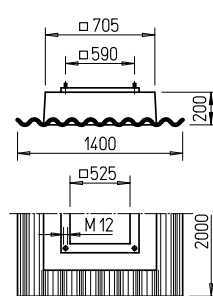
Motorised backdraught shutter
RVM 450 Ref. no. 2581



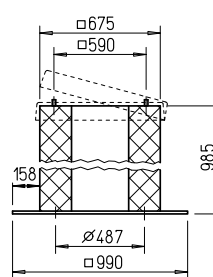
Hinged flat roof base
FDS 450 Ref. no. 1381



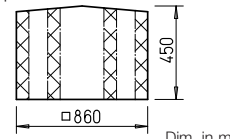
Corrugated roof base, profile 5
WDS 450 Ref. no. 1563



Hinged base attenuator
SSD 450 Ref. no. 5288



Roof fan attenuator
HSDV 450 Ref. no. 7482
only for type VD



Dim. in mm

five-step controllers. See table for assignment.

■ Sound levels

The sum levels and spectrum figures are specified above the performance curve for:
– Sound level intake
– Sound level exhaust

The horizontal sound pressure level at 4 m (free field conditions) is also specified in the type table as well as the table below the performance curve.

■ Delivery

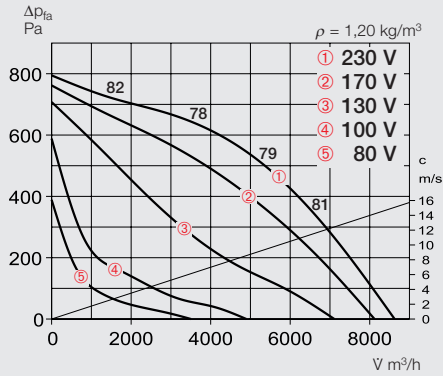
Ready-to-connect, completely pre-assembled in shipping carton. Simple positioning with stand crane hooks.

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Speed controller and switch	525 on

* Accessory VD T120 see installation accessories p. 485 Other accessories upon request.

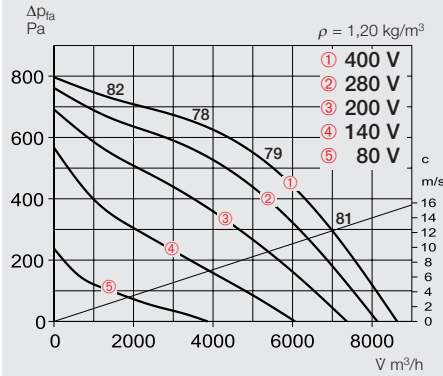
RDW 450/4

Frequency	Hz	Total	125	250	500	1k	2k	4k	
L _{WA} Intake		dB(A)	74	63	68	68	67	66	61
L _{WA} Exhaust		dB(A)	79	69	70	70	74	69	62



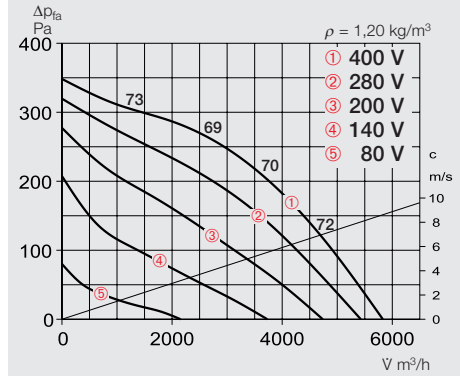
RDD 450/4

Frequency	Hz	Total	125	250	500	1k	2k	4k	
L _{WA} Intake		dB(A)	74	63	68	68	67	66	61
L _{WA} Exhaust		dB(A)	79	69	70	70	74	69	62



RDD 450/6

Frequency	Hz	Total	125	250	500	1k	2k	4k	
L _{WA} Intake		dB(A)	65	54	59	59	58	57	52
L _{WA} Exhaust		dB(A)	70	60	61	61	65	60	53

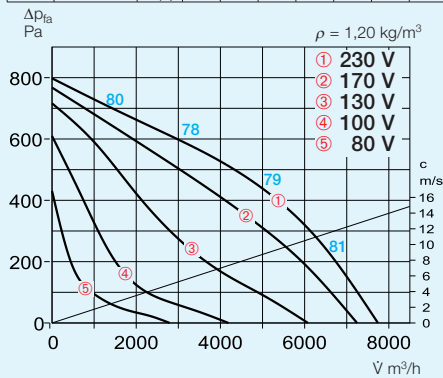


Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	flow temp. control	Weight net	Full motor protection device	5-step speed switch		
		min ⁻¹	m³/h	dB(A) in 4m	W	A	A	No.	°C	°C	kg	Type	Ref. no.		
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 54															
RDW 450/4	7377	1385	8650	62	1470	6.6	8.7	1128	60	40	48.0	MW	1579	MWS 10 ²⁾	1946
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54															
RDD 450/6	7385	905	5850	53	425	1.1	1.1	1129	60	60	41.0	MD	5849	RDS 2 ²⁾	1315
RDD 450/4	7384	1400	8650	62	1350	2.6	2.9	1129	70	70	47.5	MD	5849	RDS 7 ²⁾	1316
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3															
RDD 450/6 Ex ¹⁾	7391	860	5850	53	520	0.95	0.95	1129	40	40	41.0	MSA	1289	TSD 1,5	1501
RDD 450/4 Ex ¹⁾	7390	1400	8780	62	1550	3.8	3.8	1129	40	40	47.5	MSA	1289	TSD 5,5	1503

1) Performance curve on www.HeliosSelect.de 2) includes full motor protection device

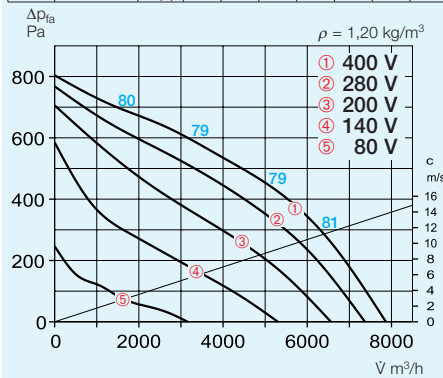
VDW 450/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A)	73	62	67	66	65	60
L _{WA} Exhaust		dB(A)	79	69	70	70	74	69



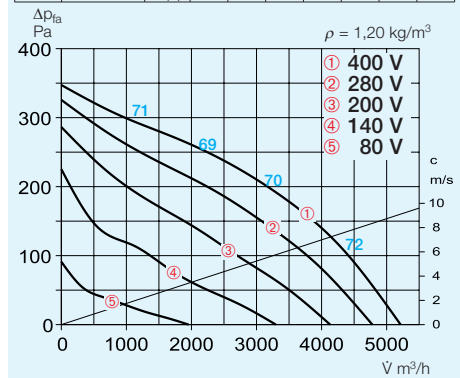
VDD 450/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A)	73	62	67	66	65	60
L _{WA} Exhaust		dB(A)	79	70	71	71	75	70



VDD 450/6

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A)	64	53	58	58	57	56
L _{WA} Exhaust		dB(A)	70	60	61	61	65	60



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	flow temp. control	Weight net	Full motor protection device	5-step speed switch		
		min ⁻¹	m³/h	dB(A) in 4m	W	A	A	No.	°C	°C	kg	Type	Ref. no.		
Single phase motor 230 V, 50 Hz, capacitor motor, protection to IP 54															
VDW 450/4	7372	1385	7750	62	1470	6.6	8.7	1128	60	40	49.0	MW	1579	MWS 10 ²⁾	1946
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54															
VDD 450/6	7380	905	5200	53	425	1.1	1.1	1129	60	60	42.0	MD	5849	RDS 2 ²⁾	1315
VDD 450/4	7379	1400	7900	62	1350	2.6	2.9	1129	70	70	48.5	MD	5849	RDS 7 ²⁾	1316
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3															
VDD 450/6 Ex ¹⁾	7387	860	5230	53	520	0.95	0.95	1129	40	40	42.0	MSA	1289	TSD 1,5	1501
VDD 450/4 Ex ¹⁾	7386	1400	7700	62	1550	3.8	3.8	1129	40	40	48.5	MSA	1289	TSD 5,5	1503
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54															
VDD 450/6 T120 ¹⁾	7399	900	5570	53	490	1.4	1.4	1129	120	100	54.0	MD	5849	RDS 2 ²⁾	1315
VDD 450/4 T120 ¹⁾	7398	1390	8600	62	1330	3.8	3.8	1129	120	100	60.0	MD	5849	RDS 7 ²⁾	1578

1) Performance curve on www.HeliosSelect.de 2) includes full motor protection device

Series specification

■ Specification RD

Centrifugal roof fan with horizontal discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Specification VD

Centrifugal roof fan with vertical discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Special feature VD T120

Designed for moving process air up to +120 °C. Encapsulated motor located outside of air flow.

Specification for all series

■ Casing

Casing made from seawater-resistant aluminium with integrated protection. Motor base plate and base plate with inlet cone made from galvanised steel (inlet cone ex-proof version made from aluminium). Base plate with threaded bolt for connection of intake air accessories (hole pattern according to DIN 24155).

■ Impeller

High performance backward curved centrifugal impeller made of polymer (T120 and ex-proof version made from aluminium). Dynamically balanced according to DIN ISO 1940-1.

■ Motor

Totally enclosed speed controllable external rotor motor IP 54 (Ex-proof version in IP 44). Flange motor with self-ventilation (T120 version) in IP 54/55. Ball bearing mounted with moisture protection. Maintenance-free and interference-free.

■ Motor protection

Through built-in thermal contacts or built-in PTC thermistor, which must be connected to a full motor protection device. See type table for assignment.

■ Electrical connection

Without dismantling the casing, to external isolator (ex-proof version to terminal box) protected to IP 65.

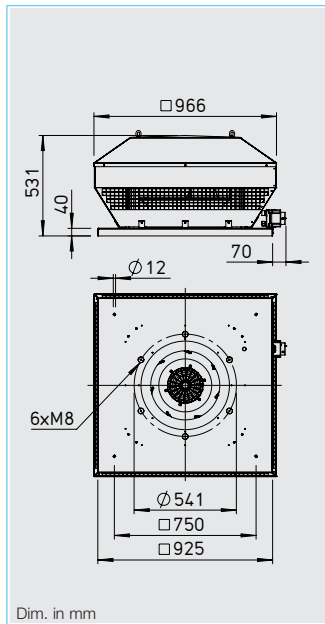
■ Guard

Standard on the exhaust side according to DIN EN ISO 13857.

■ Speed control

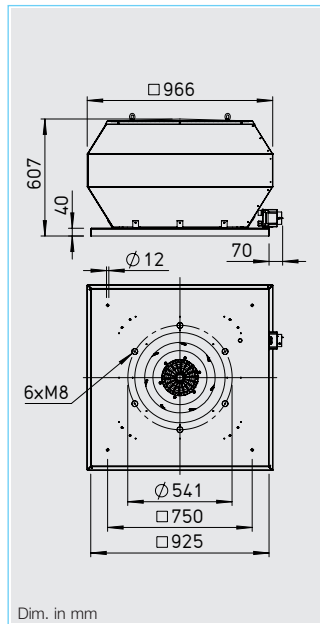
All types are steplessly speed controllable in the range from 0 – 100 % with a frequency inverter with an integrated, all-pole sine filter (except ex-proof version) or five-step controllers (except devices with FU). See table for assignment.

Horizontal discharge RD



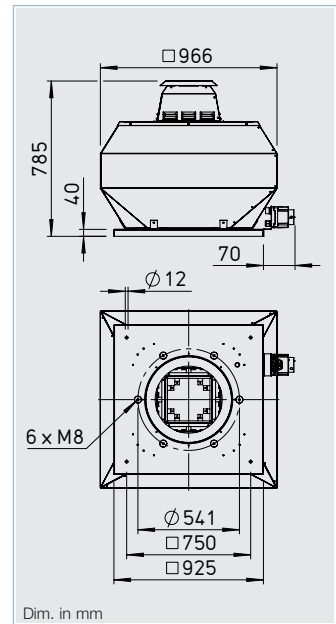
Dim. in mm

Vertical discharge VD



Dim. in mm

VD T120

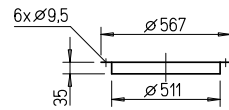


Dim. in mm

Accessories for Type RD / VD*

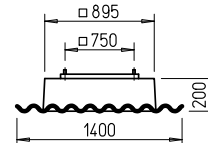
Counterflange FR 500

Ref. no. 1208



Corrugated roof base, profile 5 WDS 500

Ref. no. 1564



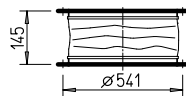
Flanged flexible connector STS 500

Ref. no. 1225

For ex-proof fans

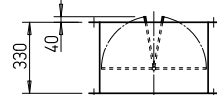
STS 500 Ex

Ref. no. 2507



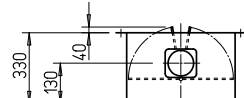
Automatic backdraught shutter RVS 500

Ref. no. 2598



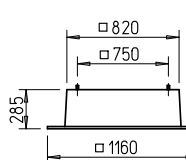
Motorised backdraught shutter RVM 500

Ref. no. 2582



Flat roof base FDS 500

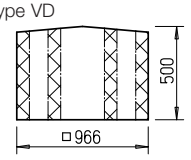
Ref. no. 1382



Roof fan attenuator HSDV 500

Ref. no. 7483

only for type VD



Dim. in mm

■ Sound levels

The sum levels and spectrum figures are specified above the performance curve for:
 – Sound level intake
 – Sound level exhaust

The horizontal sound pressure level at 4 m (free field conditions) is also specified in the type table as well as the table below the performance curve.

■ Delivery

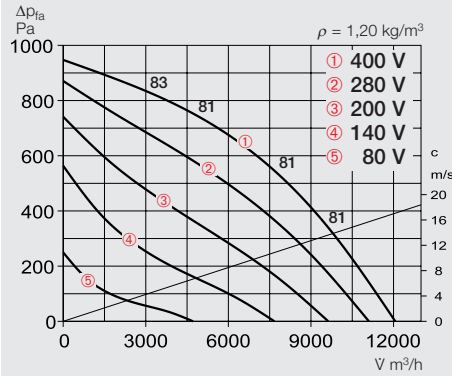
Ready-to-connect, completely pre-assembled in shipping carton. Simple positioning with stand crane hooks.

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Speed controller and switch	525 on

* Accessory VD T120 see installation accessories p. 485 Other accessories upon request.

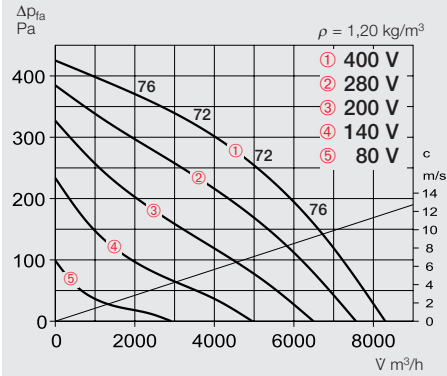
RDD 500/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 76	67	71	69	69	66	62
L _{WA} Exhaust		dB(A) 81	72	74	75	76	70	65



RDD 500/6

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 67	58	62	60	60	57	53
L _{WA} Exhaust		dB(A) 72	63	65	66	67	61	56

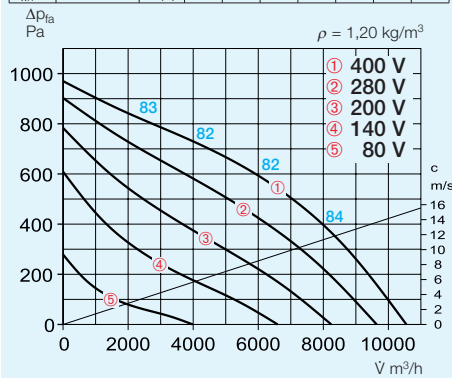


Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow full load	flow temp. control	Weight net	Full motor protection device	5-step speed switch		
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	°C	kg	Type	Ref. no.	Type	Ref. no.
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54															
RDD 500/6	7410	885	8300	55	680	1.55	1.55	1129	50	50	49.0	MD	5849	RDS 2 ²⁾	1315
RDD 500/4	7409	1340	12100	64	2150	4.15	4.25	1129	55	50	58.0	MD	5849	RDS 7 ²⁾	1578
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3															
RDD 500/6 Ex ¹⁾	7414	810	8050	55	560	1.1	1.1	1129	40	40	49.0	MSA	1289	TSD 1,5	1501
RDD 500/4 Ex ¹⁾	7416	1420	13030	64	2250	4.5	5.8	—	40	40	58.0	MSA	1289	TSD 7	1504

1) Performance curve on www.HeliosSelect.de 2) includes full motor protection device

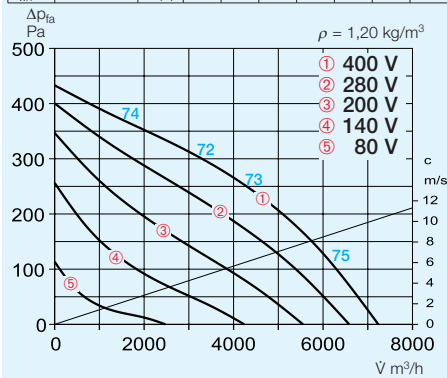
VDD 500/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 76	67	71	69	69	66	62
L _{WA} Exhaust		dB(A) 82	71	75	76	76	74	69



VDD 500/6

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 67	58	62	60	60	57	53
L _{WA} Exhaust		dB(A) 73	62	66	67	67	65	60



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow full load	flow temp. control	Weight net	Full motor protection device	5-step speed switch / Frequency inverter		
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	°C	kg	Type	Ref. no.	Type	Ref. no.
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54															
VDD 500/6	7402	885	7250	56	680	1.55	1.55	1129	50	50	51.0	MD	5849	RDS 2 ²⁾	1315
VDD 500/4	7401	1340	10550	65	2150	4.15	4.25	1129	55	50	60.0	MD	5849	RDS 7 ²⁾	1578
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3															
VDD 500/6 Ex ¹⁾	7412	810	6900	56	560	1.1	1.1	1129	40	40	51.0	MSA	1289	TSD 1,5	1501
VDD 500/4 Ex ¹⁾	7413	1420	11400	65	2250	4.5	5.8	1129	40	40	60.0	MSA	1289	TSD 7	1504
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54 or IP 55*															
VDD 500/6 T120 ¹⁾	7419	910	8250	56	790	1.9	1.9	1129	120	100	62.0	MD	5849	RDS 4 ²⁾	1316
VDD 500/4 T120 ^{1)*}	7418	1440	13060	65	3000	6	—	1130	120	100	71.0	MSA	1289	FU-BS 14	5463

1) Performance curve on www.HeliosSelect.de 2) includes full motor protection device

Series specification

■ Specification RD

Centrifugal roof fan with horizontal discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Specification VD

Centrifugal roof fan with vertical discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Special feature VD T120

Designed for moving process air up to +120 °C. Encapsulated motor located outside of air flow.

Specification for all series

■ Casing

Casing made from seawater-resistant aluminium with integrated protection. Motor base plate and base plate with inlet cone made from galvanised steel (inlet cone ex-proof version made from aluminium). Base plate with threaded bolt for connection of intake air accessories (hole pattern according to DIN 24155).

■ Impeller

High performance backward curved centrifugal impeller made of aluminium. Dynamically balanced according to DIN ISO 1940-1.

■ Motor

Totally enclosed speed controllable external rotor motor IP 54 (Ex-proof version in IP 44).

Flange motor with self-ventilation (T120 version) in IP 54/55. Ball bearing mounted with moisture protection. Maintenance-free and interference-free.

■ Motor protection

Through built-in thermal contacts or built-in PTC thermistor, which must be connected to a full motor protection device. See type table for assignment.

■ Electrical connection

Without dismantling the casing, to external isolator (ex-proof version to terminal box) protected to IP 65.

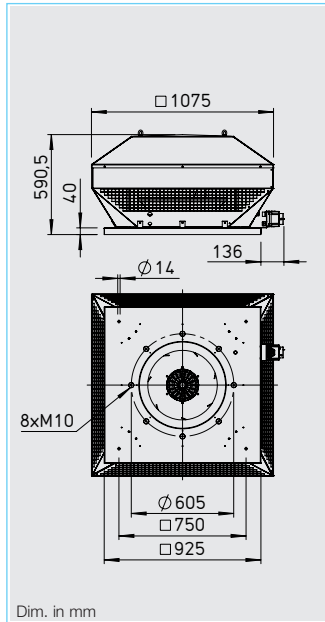
■ Guard

Standard on the exhaust side according to DIN EN ISO 13857.

■ Speed control

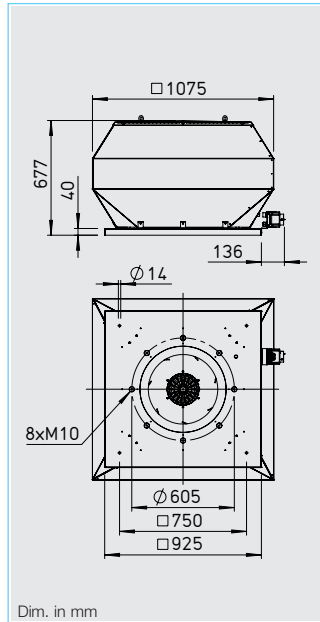
All types are steplessly speed controllable in the range from 0 – 100 % with a frequency inverter with an integrated, all-pole sine filter (except ex-proof version) or five-step controllers (except devices with FU). See table for assignment.

Horizontal discharge RD



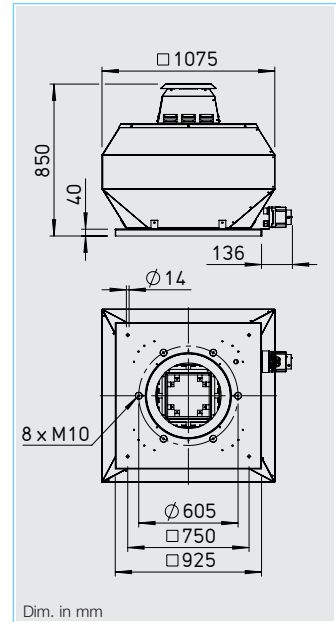
Dim. in mm

Vertical discharge VD



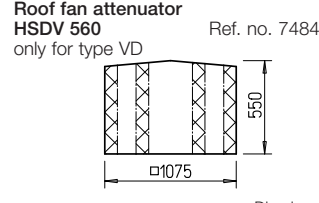
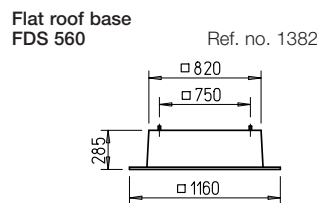
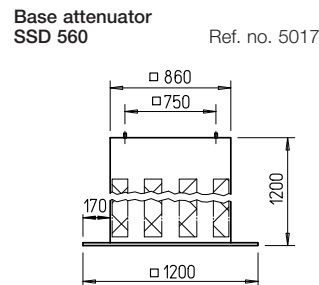
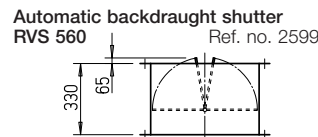
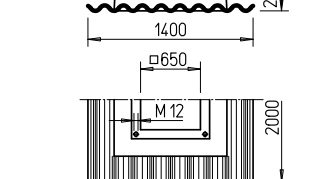
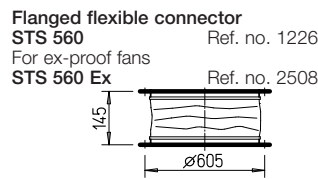
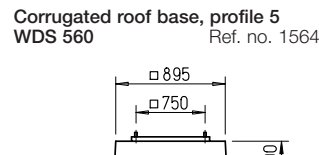
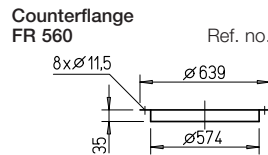
Dim. in mm

VD T120



Dim. in mm

Accessories for Type RD / VD*



Dim. in mm

■ Sound levels

The sum levels and spectrum figures are specified above the performance curve for:

- Sound level intake
- Sound level exhaust

The horizontal sound pressure level at 4 m (free field conditions) is also specified in the type table as well as the table below the performance curve.

■ Delivery

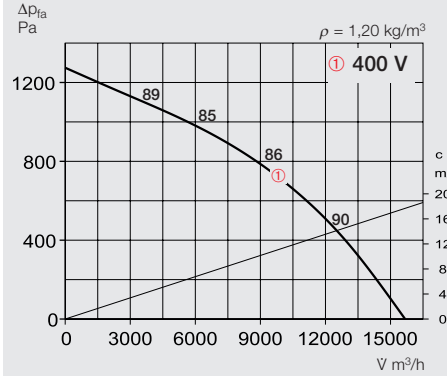
Ready-to-connect, completely pre-assembled in shipping carton. Simple positioning with stand crane hooks.

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* Accessory VD T120 see installation accessories p. 485 Other accessories upon request.

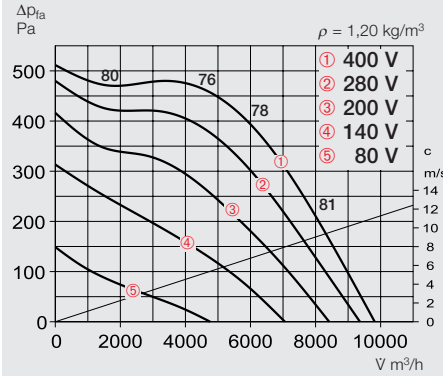
RDD 560/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 81	70	72	73	74	73	69
L _{WA} Exhaust		dB(A) 86	74	77	79	80	77	70



RDD 560/6

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 72	62	64	65	66	65	61
L _{WA} Exhaust		dB(A) 77	66	69	71	72	69	62

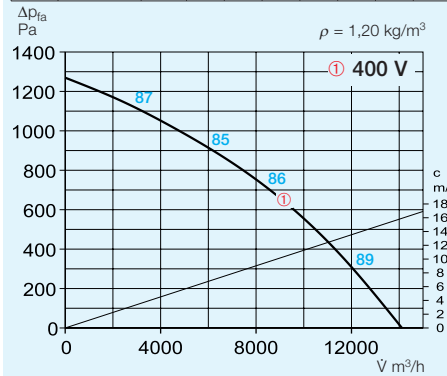


Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	Weight net	Full motor protection device	5-step speed switch / Frequency inverter
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	kg	Type Ref. no.	Type Ref. no.
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54												
RDD 560/6	7429	920	9850	60	1180	3.2	3.2	1130	65	73.0	MD 5849	RDS 7 ²⁾ 1578
RDD 560/4	7426	1385	15700	69	4430	6.4	—	1130	55	83.0	MD 5849	FU-BS 8,0 5461
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3												
RDD 560/6 Ex ¹⁾	7432	850	10620	60	1050	2.0	2.0	1129	40	73.0	MSA 1289	TSD 3 1502

1) Performance curve on www.HeliosSelect.de 2) includes full motor protection device

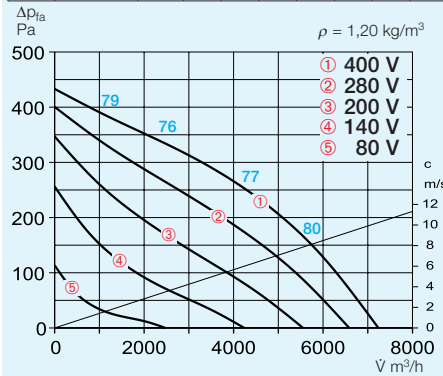
VDD 560/4

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 82	71	73	74	75	74	70
L _{WA} Exhaust		dB(A) 86	75	79	81	80	76	72



VDD 560/6

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 72	61	63	64	65	64	60
L _{WA} Exhaust		dB(A) 77	66	70	72	71	67	63



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	Weight net	Full motor protection device	5-step speed switch / Frequency inverter
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	kg	Type Ref. no.	Type Ref. no.
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54												
VDD 560/6	7422	920	9250	60	1180	3.2	3.2	1130	65	77.0	MD 5849	RDS 7 ²⁾ 1578
VDD 560/4	7420	1385	14100	69	4430	6.4	—	1130	55	77.0	MD 5849	FU-BS 8,0 5461
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3												
VDD 560/6 Ex ¹⁾	7430	850	10000	60	1050	2.0	2.0	1129	40	92.0	MSA 1289	TSD 3 1502
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54 or IP 55*												
VDD 560/6 T120 ¹⁾	7439	930	12000	60	1300	3.5	3.5	1129	120	92.0	MD 5849	RDS 7 ²⁾ 1578
VDD 560/4 T120 ¹⁾	7436	1460	18830	69	5500	11.5	—	1130	120	102.0	MSA 1289	FU-BS 8,0 5461

1) Performance curve on www.HeliosSelect.de 2) includes full motor protection device

Series specification

■ Specification RD

Centrifugal roof fan with horizontal discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Specification VD

Centrifugal roof fan with vertical discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Special feature VD T120

Designed for moving process air up to +120 °C. Encapsulated motor located outside of air flow.

Specification for all series

■ Casing

Casing made from seawater-resistant aluminium with integrated protection. Motor base plate and base plate with inlet cone made from galvanised steel (inlet cone ex-proof version made from aluminium). Base plate with threaded bolt for connection of intake air accessories (hole pattern according to DIN 24155).

■ Impeller

High performance backward curved centrifugal impeller made of aluminium. Dynamically balanced according to DIN ISO 1940-1.

■ Motor

Totally enclosed speed controllable external rotor motor IP 54 (Ex-proof version in IP 44). Flange motor with self-ventilation (T120 version) in IP 55. Ball bearing mounted with moisture protection. Maintenance-free and interference-free.

■ Motor protection

Through built-in thermal contacts or built-in PTC thermistor, which must be connected to a full motor protection device. See type table for assignment.

■ Electrical connection

Without dismantling the casing, to external isolator (ex-proof version to terminal box) protected to IP 65.

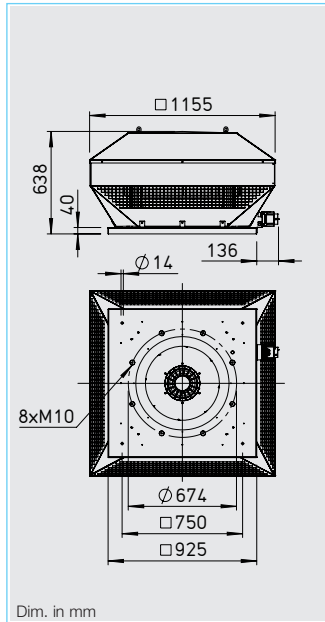
■ Guard

Standard on the exhaust side according to DIN EN ISO 13857.

■ Speed control

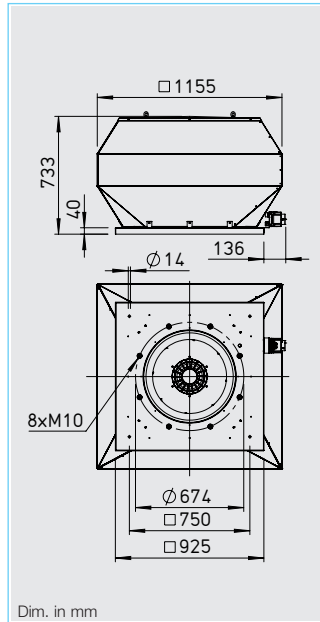
All types are steplessly speed controllable in the range from 0 – 100 % with a frequency inverter with an integrated, all-pole sine filter (except ex-proof version) or five-step controllers (except devices with FU). See table for assignment.

Horizontal discharge RD



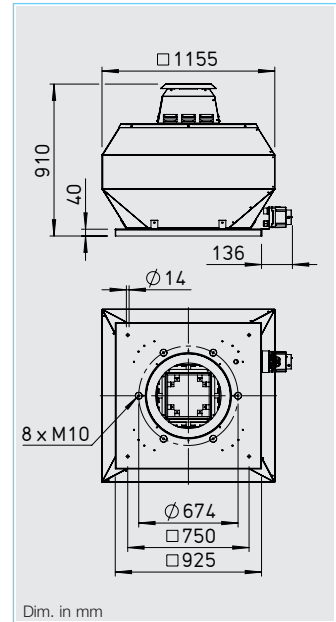
Dim. in mm

Vertical discharge VD



Dim. in mm

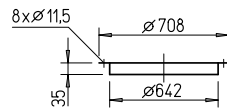
VD T120



Dim. in mm

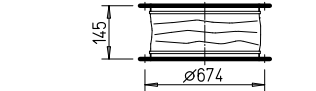
Accessories for Type RD / VD*

Counterflange FR 630 Ref. no. 1211

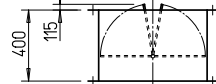


Flanged flexible connector STS 630 Ref. no. 1228

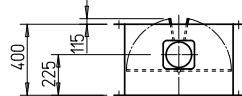
For ex-proof fans



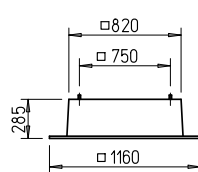
Automatic backdraught shutter RVS 630 Ref. no. 2600



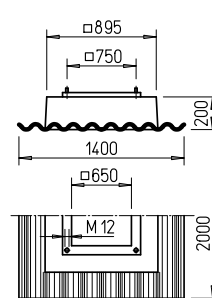
Motorised backdraught shutter RVM 630 Ref. no. 2609



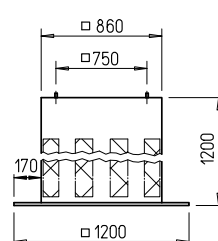
Flat roof base FDS 630 Ref. no. 1382



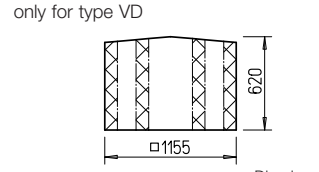
Corrugated roof base, profile 5 WDS 630 Ref. no. 1565



Base attenuator SSD 630 Ref. no. 5017



Roof fan attenuator HSDV 630 Ref. no. 7489



Dim. in mm

■ Sound levels

The sum levels and spectrum figures are specified above the performance curve for:
 – Sound level intake
 – Sound level exhaust

The horizontal sound pressure level at 4 m (free field conditions) is also specified in the type table as well as the table below the performance curve.

■ Delivery

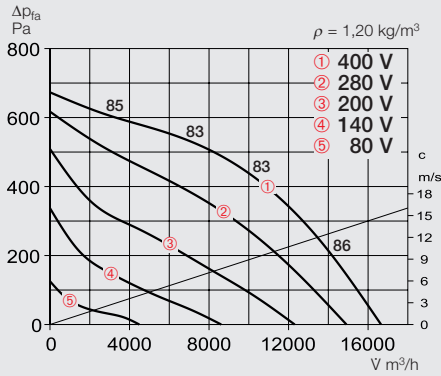
Ready-to-connect, completely pre-assembled in shipping carton. Simple positioning with stand crane hooks.

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* Accessory VD T120 see installation accessories p. 485 Other accessories upon request.

RDD 630/6

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 79	62	69	73	74	72	70
L _{WA} Exhaust		dB(A) 83	67	72	79	78	74	68

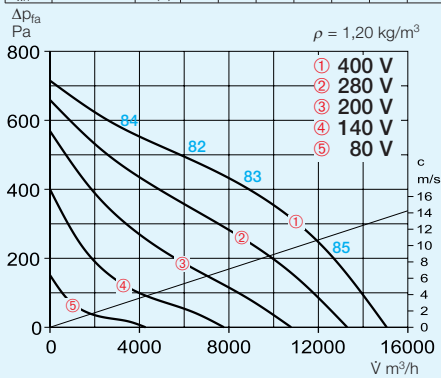


Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	Weight net	Full motor protection device	5-step speed switch
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	kg	Type Ref. no.	Type Ref. no.
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54												
RDD 630/6	7447	875	16650	66	2380	4.7	5.2	1129	55	45	MD 5849	RDS 7 ²⁾ 1578
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3												
RDD 630/6 Ex ¹⁾	7450	945	15660	66	2000	4.4	4.4	1129	40	40	MSA 1289	TSD 7 1504

1) Performance curve on www.HeliosSelect.de 2) includes full motor protection device

VDD 630/6

Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 78	61	68	72	73	71	69
L _{WA} Exhaust		dB(A) 83	67	72	79	78	74	68



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow temp. full load	Weight net	Full motor protection device	5-step speed switch / Frequency inverter
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	kg	Type Ref. no.	Type Ref. no.
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54												
VDD 630/6	7441	875	15050	66	2380	4.7	5.2	1129	55	45	MD 5849	RDS 7 ²⁾ 1578
Explosion-proof, three phase motor 400 V, 50 Hz, protection to IP 44, temp. class T1-T3												
VDD 630/6 Ex ¹⁾	7448	945	14100	66	2000	4.4	4.4	1129	40	40	MSA 1289	TSD 7 1504
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 55												
VDD 630/6 T120 ¹⁾	7456	980	16600	66	4000	10	—	1130	120	100	MSA 1289	FU-BS 14 5463

1) Performance curve on www.HeliosSelect.de 2) includes full motor protection device



Series specification

■ Specification RD

Centrifugal roof fan with horizontal discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Specification VD

Centrifugal roof fan with vertical discharge and efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

■ Special feature VD T120

Designed for moving process air up to +120 °C. Encapsulated motor located outside of air flow.

Specification for all series

■ Casing

Casing made from seawater-resistant aluminium with integrated protection. Motor base plate and base plate with inlet cone made from galvanised steel. Base plate with threaded bolt for connection of intake air accessories (hole pattern according to DIN 24155).

■ Impeller

High performance backward curved centrifugal impeller made of aluminium. Dynamically balanced according to DIN ISO 1940-1.

■ Motor

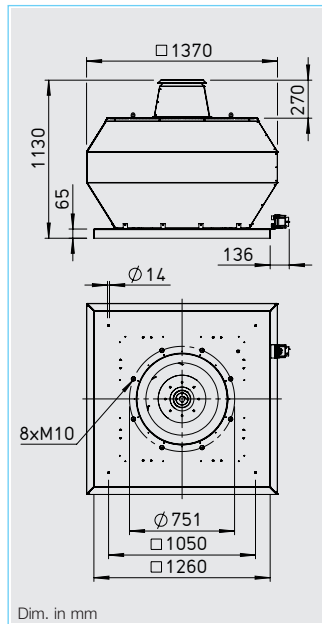
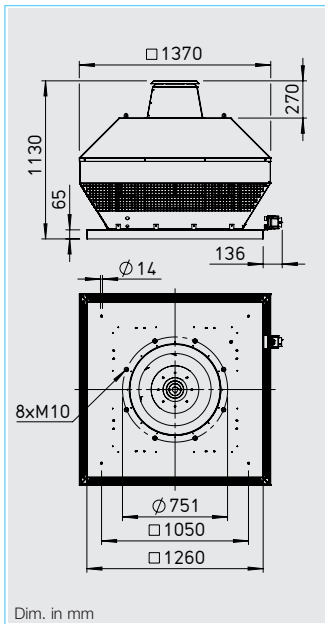
Totally enclosed speed controllable IEC standard motor with self-ventilation IP 55. Ball bearing mounted with moisture protection. Maintenance-free and interference-free.

■ Motor protection

Through built-in thermal contacts or built-in PTC thermistor, which must be connected to a full motor protection device. See type table for assignment.

■ Electrical connection

Without dismantling the casing, to external isolator protected to IP 65.



■ Guard

Standard on the exhaust side according to DIN EN ISO 13857.

■ Speed control

All types are steplessly speed controllable in the range from 0 – 100 % with a frequency inverter with an integrated, all-pole sine filter.

■ Sound levels

The sum levels and spectrum figures are specified above the performance curve for:
– Sound level intake
– Sound level exhaust

The horizontal sound pressure level at 4 m (free field conditions) is also specified in the type table as well as the table below the performance curve.

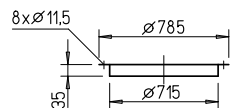
■ Delivery

Ready-to-connect, completely pre-assembled in shipping carton. Simple positioning with stand crane hooks.

Accessories for Type RD / VD*

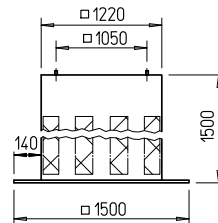
Counterflange FR 710

Ref. no. 1212



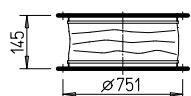
Base attenuator SSD 710

Ref. no. 5287



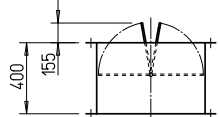
Flanged flexible connector STS 710

Ref. no. 1229



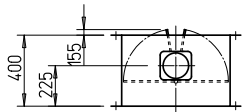
Automatic backdraught shutter RVS 710

Ref. no. 2601



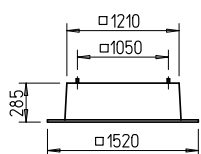
Motorised backdraught shutter RVM 710

Ref. no. 2610



Flat roof base FDS 710

Ref. no. 6658



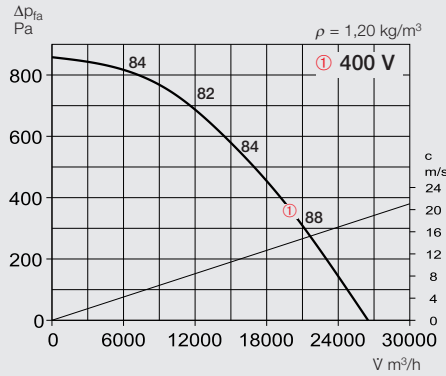
Dim. in mm

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* Accessory VD T120 see installation accessories p. 485 Other accessories upon request.

RDD 710/6

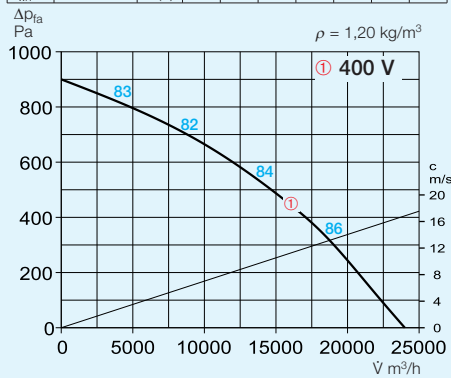
Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 79	68	71	71	72	74	68
L _{WA} Exhaust		dB(A) 83	71	73	76	77	78	70



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow full load	max. air flow temp. control	Weight net	Full motor protection device	5-step speed switch / Frequency inverter		
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	°C	kg	Type	Ref. no.	Type	Ref. no.
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54															
RDD 710/6	7460	905	26500	66	5500	12.2	—	1130	50	50	112.0	MSA	1289	FU-BS 14	5463

VDD 710/6

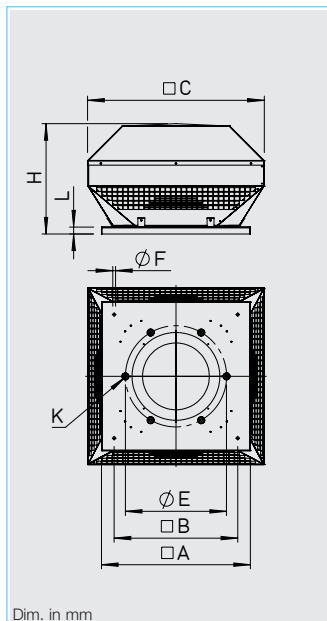
Frequency	Hz	Total	125	250	500	1k	2k	4k
L _{WA} Intake		dB(A) 78	67	70	70	71	73	67
L _{WA} Exhaust		dB(A) 83	71	73	76	77	78	70



Type	Ref. no.	R.P.M.	Air flow volume (FID)	Sound pressure level	Motor power	Current full load	Current control	Wiring diagram	max. air flow full load	max. air flow temp. control	Weight net	Full motor protection device	5-step speed switch / Frequency inverter		
		min ⁻¹	m ³ /h	dB(A) in 4m	W	A	A	No.	°C	°C	kg	Type	Ref. no.	Type	Ref. no.
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 54															
VDD 710/6	7458	905	24000	66	5500	12.2	—	1130	50	50	115.0	MSA	1289	FU-BS 14	5463
Three phase motor 400 V, 50 Hz, squirrel-cage rotor, protection to IP 55															
VDD 710/6 T120 ¹⁾	7466	965	24000	66	5500	12.2	—	1130	120	100	130.0	MSA	1289	FU-BS 14	5463

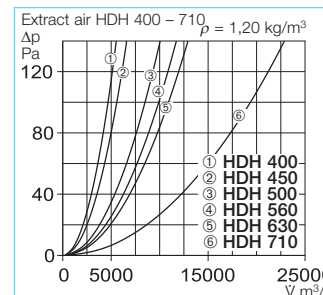
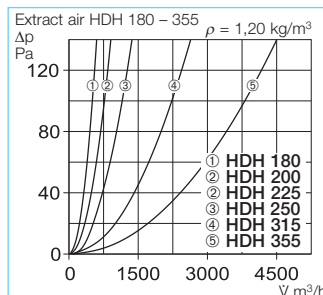
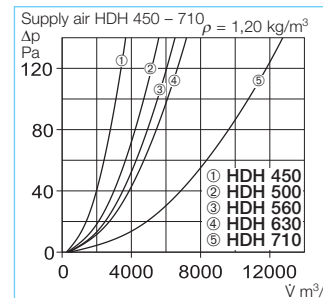
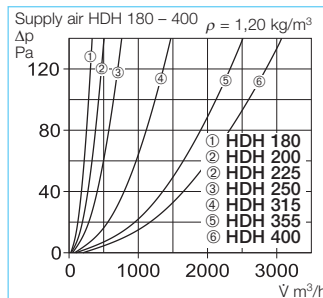
1) Performance curve on www.HeliosSelect.de

HDH



■ **Roof cowl HDH**

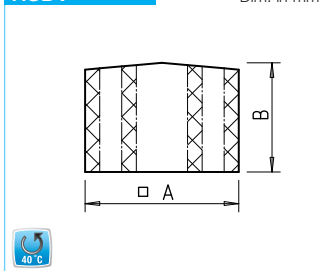
For covering the convection and supply air vents on the roof. Same design as horizontal discharge roof fans RD. When using in mechanical ventilation systems the emerging flow losses must be considered (see diagram). Accessories same as for roof fans.



Type	Ref. no.	Nominal size	□ A	□ B	□ C	Ø E	Ø F	H	K	L	Weight net
		mm	mm	mm	mm	mm	mm	mm	mm	mm	approx. kg
HDH 180	7492	180	320	245	309	213	10	155	6 x M6	30	3.5
HDH 200	7493	200	425	330	405	259	10	198	6 x M6	30	5.0
HDH 225	7495	225	425	330	405	259	10	198	6 x M6	30	5.0
HDH 250	7496	250	580	450	450	286	10	255	6 x M6	30	8.0
HDH 315	7497	315	580	450	606	356	12	386	8 x M8	30	12.5
HDH 355	7498	355	645	535	740	395	12	452	8 x M8	30	17.5
HDH 400	7499	400	645	535	765	438	12	478	6 x M8	30	17.5
HDH 450	7491	450	730	590	860	487	12	473	6 x M8	30	26.0
HDH 500	7513	500	925	750	966	541	12	531	6 x M8	40	30.0
HDH 560	7517	560	925	750	1075	605	14	591	8 x M10	40	44.0
HDH 630	7518	630	925	750	1155	674	14	633	8 x M10	40	47.0
HDH 710	7519	710	1260	1050	1370	751	14	860	8 x M10	65	52.0

HSDV

Dim. in mm



■ **Roof fan attenuator HSDV for discharge-side sound insulation**

Average attenuation value 8 dB. Available for series VD, nominal size 315 – 630. The construction encloses the roof fan and can be subsequently mounted without any structural alterations. Can only be mounted on VD series.

RS



■ **Isolator switch RS**

RS 3+1+2 Ref. no. 7536

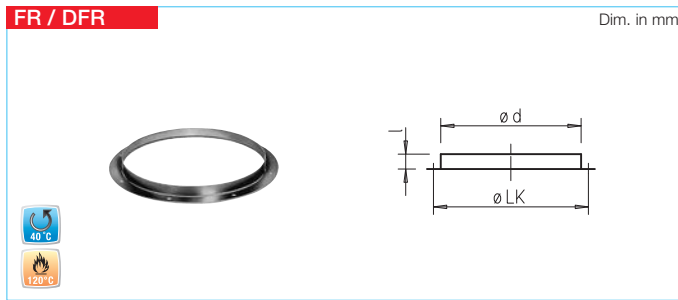
- 3 main contacts
- 1 auxiliary contact
- 2 contacts for TB/TP

For fans with direct start-up. Polymer casing for surface mounted installation. Locking options in "0 OFF" position.

Type	Ref. no.	A in mm	B in mm
HSDV 315	7476	606	310
HSDV 355	7480	740	350
HSDV 400	7481	765	400
HSDV 450	7482	860	450
HSDV 500	7483	966	500
HSDV 560	7484	1075	550
HSDV 630	7489	1155	620

Technical data

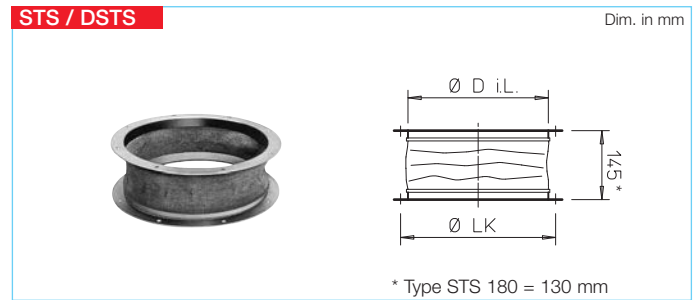
Voltage	400 V, 3~, 50/60 Hz
Operating current	20 A
Load capacity	AC-23 B, 7.5 kW
Protection class	IP 65
Protection category	II
Actuation	Rotary drive
Temperature range	-25 to +60 °C
Weight approx.	0.3 kg
Dim. mm	W 90.5 x H 90.5 x D 102
Casing	UV and weather-resistant
Wiring diagram no.	1131



Flange rings FR
Made of galvanised sheet steel, for intake duct connections. Can be screwed directly to the fan base plate.

Dimensions according to DIN 24 155, Pt. 2.

Type	Ref. no.	Ø LK	l	Ø d	Weight approx. kg
FR 180	1200	213	25	186	0.4
DFR 200	1201	259	30	233	0.5
FR 225	1201	259	30	233	0.5
FR 250	1203	286	25	256	0.6
FR 315	1204	356	30	326	0.9
FR 355	1205	395	30	365	1.1
FR 400	1206	438	30	408	1.2
FR 450	1207	487	35	457	1.8
FR 500	1208	541	35	511	1.8
FR 560	1209	605	35	574	2.0
FR 630	1211	674	35	642	2.2
FR 710	1212	751	35	715	3.3



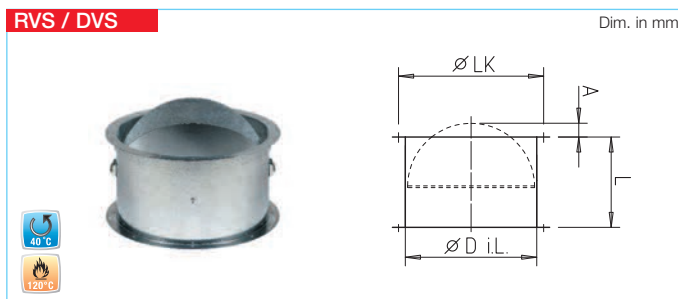
Flanged canvas connector STS
To reduce structure borne sound transmission to intake air ducting. Flanges made of galvanised sheet steel. Flexible sleeve made of polymer fabric. For ex-proof fans, type

STS Ex must be used. To be mounted directly to the fan base plate. Flange dimensions according to DIN 24 155, Pt. 2. Ambient temperature -30 °C to +80 °C.

* Type STS 180 = 130 mm

Type	Ref. no.	Type*	Ref. no.	Ø D i.L.	Ø LK	Weight approx. kg
STS 180	1217	—	—	183	213	0.9
DSTS 200	1218	DSTS 200 Ex	2500	229	259	1.1
STS 225	1218	STS 225 Ex	2500	229	259	1.1
STS 250	1220	STS 250 Ex	2501	252	286	1.3
STS 315	1221	STS 315 Ex	2503	322	356	1.8
STS 355	1222	STS 355 Ex	2504	358	395	2.1
STS 400	1223	STS 400 Ex	2505	404	438	2.5
STS 450	1224	STS 450 Ex	2506	453	487	3.8
STS 500	1225	STS 500 Ex	2507	507	541	3.4
STS 560	1226	STS 560 Ex	2508	570	605	4.5
STS 630	1228	STS 630 Ex	2509	638	674	4.6
STS 710	1229	—	—	711	751	7.0

* for explosion-proof fans. STSB for VD T120 version see separate catalogue.

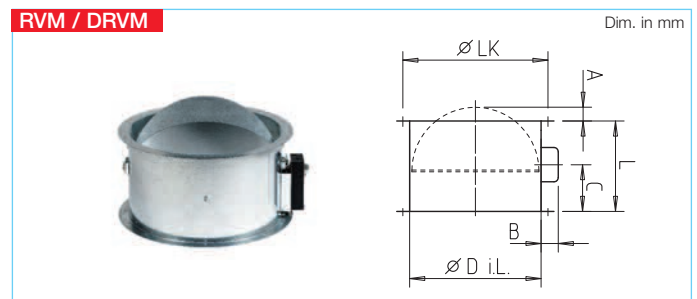


Automatic backdraught shutter with spring reverse RVS¹⁾
To prevent cold air backdraught when the fan is not in use. For vertical air flow from bottom-up (otherwise type RVM to be used). Auto matic opening function when the fan is in use. Spring mechanism outside the air flow. Holding force adjustable to fan power and

installation position. Flaps and casing made of galvanised sheet steel, flaps with nominal size 225 – 560 mm made of aluminium. Can be screwed directly to the fan base plate. Flanges on both sides. Holes pursuant to DIN 24155, Pt. 2. Ambient temperature -30 to +120 °C

Type	Ref. no.	Ø D i.L.	L	A	Ø LK	Weight approx. kg
DVS 180	1247	180	110	15	213	1.2
DRVS 200	2591	225	300	—	259	3.0
RVS 225	2591	225	300	—	259	3.0
RVS 250	2592	250	300	—	286	3.4
RVS 315	2594	315	300	—	356	4.3
RVS 355	2595	355	300	—	395	5.8
RVS 400	2596	400	330	—	438	7.2
RVS 450	2597	454	330	15	487	10.4
RVS 500	2598	504	330	40	541	11.7
RVS 560	2599	560	330	65	605	16.1
RVS 630	2600	630	400	115	674	19.5
RVS 710	2601	710	400	155	751	26.5

¹⁾ Pressure loss diagram see page 490.



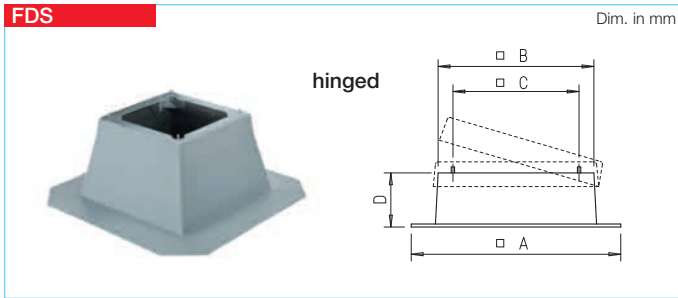
Motorised backdraught shutter RVM^{1) 2)} as RVS, but with spring reversing motor, mounted outside the air flow and for vertical air flow in any direction. Allows natural ventilation when the fan is not in use. Control of air flow in combination with a roof cowl. To be electrically operated together with the fan;

cable length 0.9 m, closed when currentless. Ambient temperature -30 to +60 °C Protection class IP 54 Voltage/Frequency 230 V AC, 50/60 Hz Power consumption - up to Ø 560 / from Ø 630 14 W/6.5 W Valve opening time, approx. 75 sec. Wiring diagram no. 380.1

Type	Ref. no.	Ø D i.L.	B	C	L	A	Ø LK	Weight aprx. kg
DRVM 200	2575	225	95	130	300	—	259	3.3
RVM 225	2575	225	95	130	300	—	259	3.3
RVM 250	2576	250	95	130	300	—	286	3.7
RVM 315	2578	315	95	130	300	—	356	4.6
RVM 355	2579	355	95	130	300	—	395	6.1
RVM 400	2580	400	95	130	330	—	438	7.5
RVM 450	2581	454	95	130	330	15	487	10.7
RVM 500	2582	504	95	130	330	40	541	12.0
RVM 560	2583	560	95	130	330	65	605	16.4
RVM 630	2609	630	150	225	400	115	674	21.0
RVM 710	2610	710	150	225	400	155	751	28.0

²⁾ Types DRVM/RVM not suitable for use in ex-areas.

FDS



Flat roof base FDS¹⁾

For installation of roof fans and roof cowls on flat roofs. Horizontal installation. Application keeps cost and assembly effort to a minimum in comparison to manual design. Corrosion-resistant reinforced fibre glass design (nom. size 710 made of galvanised sheet steel) with abrasion-proof, sound and thermal insulation. Snow-secure base height.

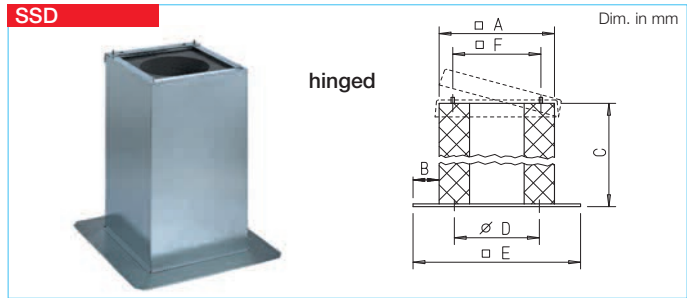
Installation

To be installed above the ceiling opening (roof). Roof coating to be covered completely with felt and to be sealed bitumen-fibre kit. Includes mounting screws, profile rubber and sealing between base and base plate.

Type	Ref. no.	A in mm	B in mm	C in mm	D in mm
FDS 180*	1377	645	285	245	285
FDS 200*	1378	750	392	330	285
FDS 225*	1378	750	392	330	285
FDS 250*	1379	870	520	450	285
FDS 315*	1379	870	520	450	285
FDS 355*	1380	950	605	535	285
FDS 400*	1380	950	605	535	285
FDS 450*	1381	1000	660	590	285
FDS 500	1382	1160	820	750	285
FDS 560	1382	1160	820	750	285
FDS 630	1382	1160	820	750	285
FDS 710	6658	1550	1190	1050	285

* With hinge mechanism for simple inspection and cleaning. ¹⁾ FDS B for VD T120 see separate catalogue.

SSD



Hinged base attenuator SSD for intake-side sound insulation

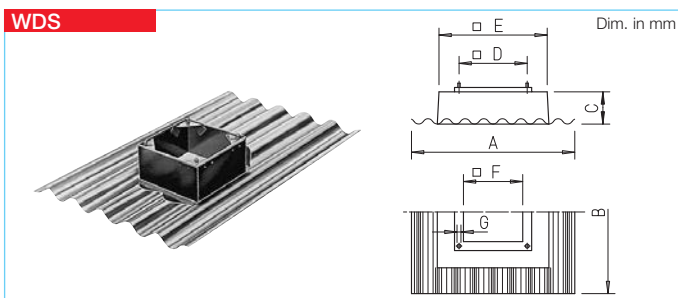
Average attenuation is 15 dB. All metal parts made of galvanised sheet steel. For installation on flat roofs in the same way as a flat roof base. Delivery includes mounting screws, profile rubber and sealing between base and base plate. For nom. size 500–710: Acoustically lined with non-flammable insulation boards, class A2,

covered with glass fibre on both sides. Nom. size 180–450: Equipped with hinges to fold the fan for maintenance purposes. Foamed material with free cross-section allows access to ducting or shaft system. Base plate is equipped with threaded holes (according to DIN 24155, Pt. 2) for connection of supply air accessories.

Type	Ref. no.	A	B	C	D	E	F
SSD 180*	5289	280	160	750	213	600	245
SSD 200*	5290	400	133	735	259	666	330
SSD 225*	5290	400	133	735	259	666	330
SSD 250*	5292	520	150	835	286	820	450
SSD 315*	5292	520	150	835	356	820	450
SSD 355*	5024	600	150	985	395	900	535
SSD 400*	5291	600	150	985	438	900	535
SSD 450*	5288	675	158	985	487	990	590
SSD 500	5017	860	170	1200	—	1200	750
SSD 560	5017	860	170	1200	—	1200	750
SSD 630	5017	860	170	1200	—	1200	750
SSD 710	5287	1220	140	1500	—	1500	1050

* With hinge mechanism for simple inspection and cleaning.

WDS



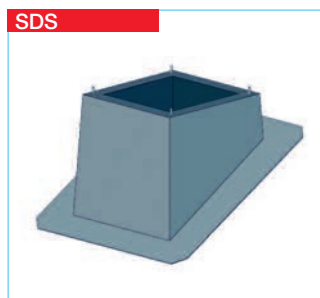
Corrugated roof base WDS

For installation of roof fans and roof cowls on corrugated roofs. Weather-resistant and corrosion-free design made from glass-fibre reinforced polyester, lightweight. No risk of breakage during shipment and on site. Low thermal transmittance value. Profile distance 177 mm (profile no. 5). Keeps planning costs and installation efforts to a minimum.

Rain drains on the front and rear chamfer between the square base and corrugated plate ensure the installation of corrugated roof panels regardless of the ceiling direction. Includes screws, washers and profile rubber for the mounting and sealing of the fan base plate.

Type	Ref. no.	A	B	C	D	E	F	G
WDS 180	1559	920	1600	200	245	295	Ø 256	M 6
WDS 200/225	1560	920	1600	200	330	395	290	M 10
WDS 250/315	1561	920	1600	200	450	555	395	M 10
WDS 355/400	1562	920	1600	200	535	625	475	M 10
WDS 450	1563	1400	2000	200	590	705	525	M 12
WDS 500/560	1564	1400	2000	200	750	895	650	M 12
WDS 630	1565	1400	2000	200	750	895	650	M 12

SDS



Sloping roof base SDS

For installation of roof fans and roof cowls on sloping roofs with slopes of up to 45°. Made of galvanised sheet steel, with sound and thermal insulated 50 mm thick cladding on the inside.

All SDS models are available on request. When ordering please specify the fan type or the nominal size of roof cowl, the roof pitch angle, the type of brick or the profile shape and height (for profile roofs), if necessary.

Installation

Base to be installed on the roof construction. The enclosing collar made of lead to be sealed. Includes mounting screws, plates and sealing between the base and base plate.

Information	Page
All centrifugal roof fans delivered without guard on intake. If there is no duct connected directly to the unit, a guard (model ASD-SGD or SG) must be used.	231
Other accessories	Page
Speed controllers, controllers and switches	525 on